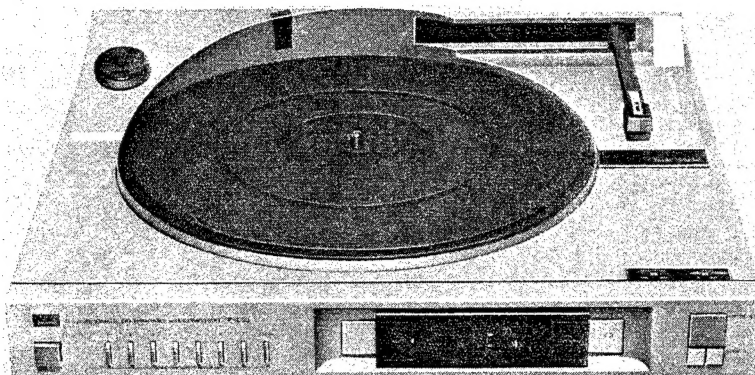


# SERVICE MANUAL

FULLY AUTOMATIC DD TURNTABLE

## SANSUI P-L50/L40

(Silver & Black Model)



### CAUTION

1. Use only replacement parts recommended by the manufacturer.
2. Measure insulation resistance before returning the appliance to the customer to prevent electrical shock.

### • SPECIFICATIONS

#### • P-L50

Type	Direct-drive turntable
Rated speeds	33-1/3, 45 rpm
Platter	Aluminum alloy diecast, 306 mm (12-1/16") diameter, 0.6 kg (1.3 lbs.) weight
Motor	Coreless and Brushless DC/FG Servo
Wow/flutter	0.028 % (WRMS)
Signal-to-noise ratio	Better than 72 dB (DIN-B) Better than 60 dB (IEC-B)
Tonearm	Statically-balanced type
Effective tonearm length	142 mm (5-5/8")
Cartridge	Dual Magnet type (SV-S505)
Output voltage	2.5 mV (1,000 Hz, 35.4 mm/sec)
Correct load impedance	47 kohms
Frequency response	10 ~ 20,000 Hz
Stylus	0.6 mil diamond stylus (SN-505) replacement stylus)
Dimensions	430 mm (16-29/32") W 114 mm (4-1/2") H 373 mm (14-11/16") D
Weight	6.5 kg (14.3 lbs.) net 7.5 kg (16.5 lbs.) packed
Power consumption	17 W

#### • P-L40

Type	Direct-drive turntable
Rated speeds	33-1/3, 45 rpm
Platter	Aluminum alloy diecast, 306 mm (12-1/16") diameter, 0.6 kg (1.3 lbs.) weight
Motor	Coreless and Brushless DC/FG Servo
Wow/flutter	0.028 % (WRMS)
Signal-to-noise ratio	Better than 72 dB (DIN-B) Better than 60 dB (IEC-B)
Tonearm	Statically-balanced type
Effective tonearm length	142 mm (5-5/8")
Cartridge	Dual Magnet type (SV-S505)
Output voltage	2.5 mV (1,000 Hz, 35.4 mm/sec)
Correct load impedance	47 kohms
Frequency response	10 ~ 20,000 Hz
Stylus	0.6 mil diamond stylus (SN-505) replacement stylus)
Dimensions	430 mm (16-29/32") W 114 mm (4-1/2") H 373 mm (14-11/16") D
Weight	6.4 kg (14.1 lbs.) net 7.4 kg (16.3 lbs.) packed
Power consumption	12 W

\* Design and specifications subject to change without notice for improvements.

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SANSUI ELECTRIC CO., LTD.

## 9. MAIN PARTS REPLACEMENT

### 9-1. Replacement of Tone Arm Driving Wire

(See Fig. 4-4 on Page 6, Top View on Page 14)

- 1) Remove the cabinet. (See How to remove the cabinet on Page 7)
- 2) Remove the mecha guide.
- 3) Loosen the tension adjusting screw.
- 4) Remove the pulley (B).
- 5) Take off the screw (A) fixing the driving wire under the mechanism chassis.

### 9-2. Replacement of Arm Bearing Ass'y (52)

(See of Exploded View of Mechanism Ass'y on Page 15)

- 1) Remove the driving wire.
- 2) Loosen the hexagon socket head screw (56) to remove the tone arm ass'y (51).
- 3) Loosen the nut (55) and the pivot (54) to remove the arm holder weight (53).
- 4) Loosen the nut (26) to remove the arm bearing ass'y.

### 9-3. Replacement of Lifter Cam (10)

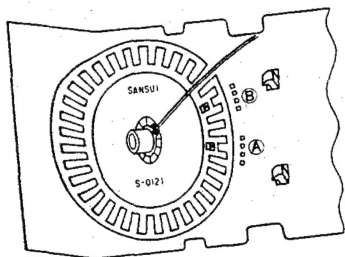
(See Exploded View of Mechanism Ass'y on Page 15)

- 1) Remove the driving wire.
- 2) Remove the tone arm Ass'y (51).
- 3) Remove the arm holder weight (53).
- 4) Remove the E-type washer (14), plane washer (13) and spring (15).
- 5) Remove the lifter plate (11).
- 6) The lifter cam can be taken out.

### 9-4. Replacement of Hall Element (H300BC)

- 1) Remove the cabinet. (See How to remove the cabinet on page 7)
- 2) Pull out the shaft with magnet of D.D. Motor.
- 3) Wipe off solder at Fig. 9-1 (A) or (B) by soldering iron.

Fig. 9-1



Take out the defective IC. (See Fig. 9-2)

Fig. 9-2

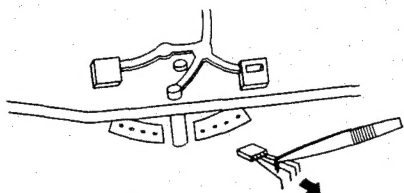
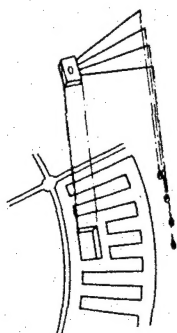


Fig. 9-3



- 5) Bend lead-wires of new H300BC fitting its portion of printed circuit board (S-0121). (See Fig. 9-3)
- 6) Place the new IC (H300BC) on the portion of printed circuit board (S-0121) and bend both outside lead-wires. (See Figs. 9-4, 9-5)

Fig. 9-4

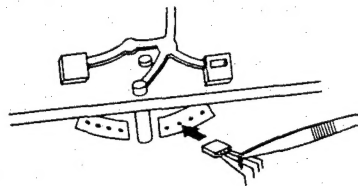
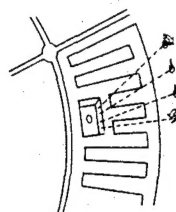


Fig. 9-5

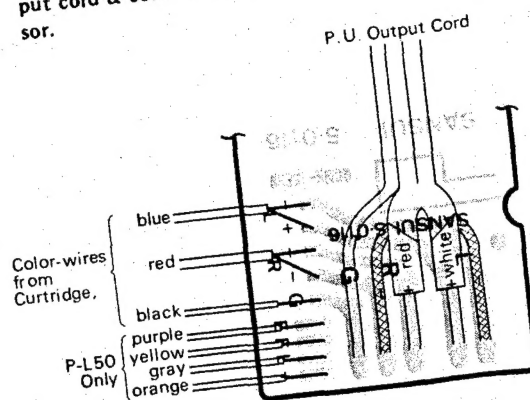


- 7) Solder point (A) or (B) (See Fig. 9-1)

### 9-5. Note on Parts Replacement

- 1) When replacing a parts of the mechanism ass'y, remove the stylus.
- 2) When replacing the worm shaft ass'y (B) (6), remove the worm shaft guide (5) and the screw (7).
- 3) Refer to Fig. 9-1, when wiring from cartridge (tone arm ass'y (51)).
- 4) When replacing a parts of the mechanism ass'y, make proper wirings referring to the top view on page 14 and Fig. 4-3 on page 6.
- 5) Perform adjustment 4-1, 4-2, 4-4, 4-5 and 4-6, when replacing a parts of the mechanism ass'y.

Fig. 9-6. S-0116 Circuit Board for connections between P.U. Output cord & color wires from cartridge, E sensor and F sensor.

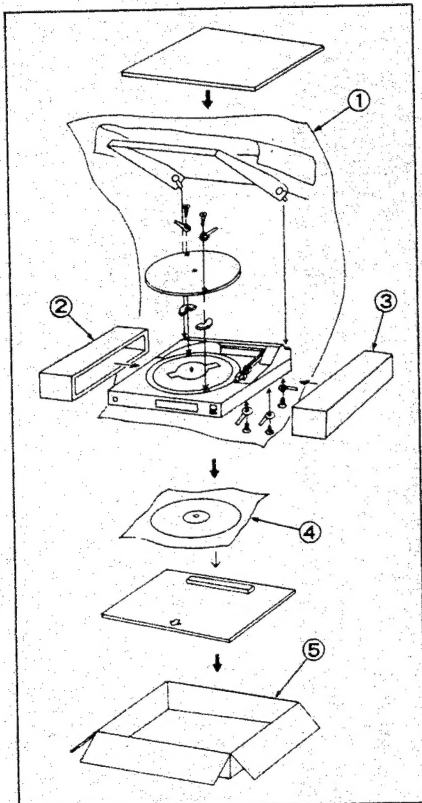


## 10. PACKING LIST

Parts No.	Stock No.	Description
1	91122710	Vinyl Bag
2	13174800	Styrofoam Packing (left)
3	13174900	Styrofoam Packing (right)
4	91166000	Vinyl Bag
5	13148800	Carton Case (Silver Model)
	13148900	Carton Case (Black Model)
	13149100	Carton Case (Silver Model)
	13149200	Carton Case (Black Model)

P-L40

P-L50



## 11. ACCESSORY LIST

Stock No.	Description
46358700	Operating Instruction (P-L40)
46358900	Operating Instruction (P-L50)
46267300	MINI PLUG CORD, COMPU-SELECTOR, COMPU EDIT

**Sansui**

SANSUI ELECTRIC CO., LTD.:

SANSUI ELECTRONICS CORPORATION:

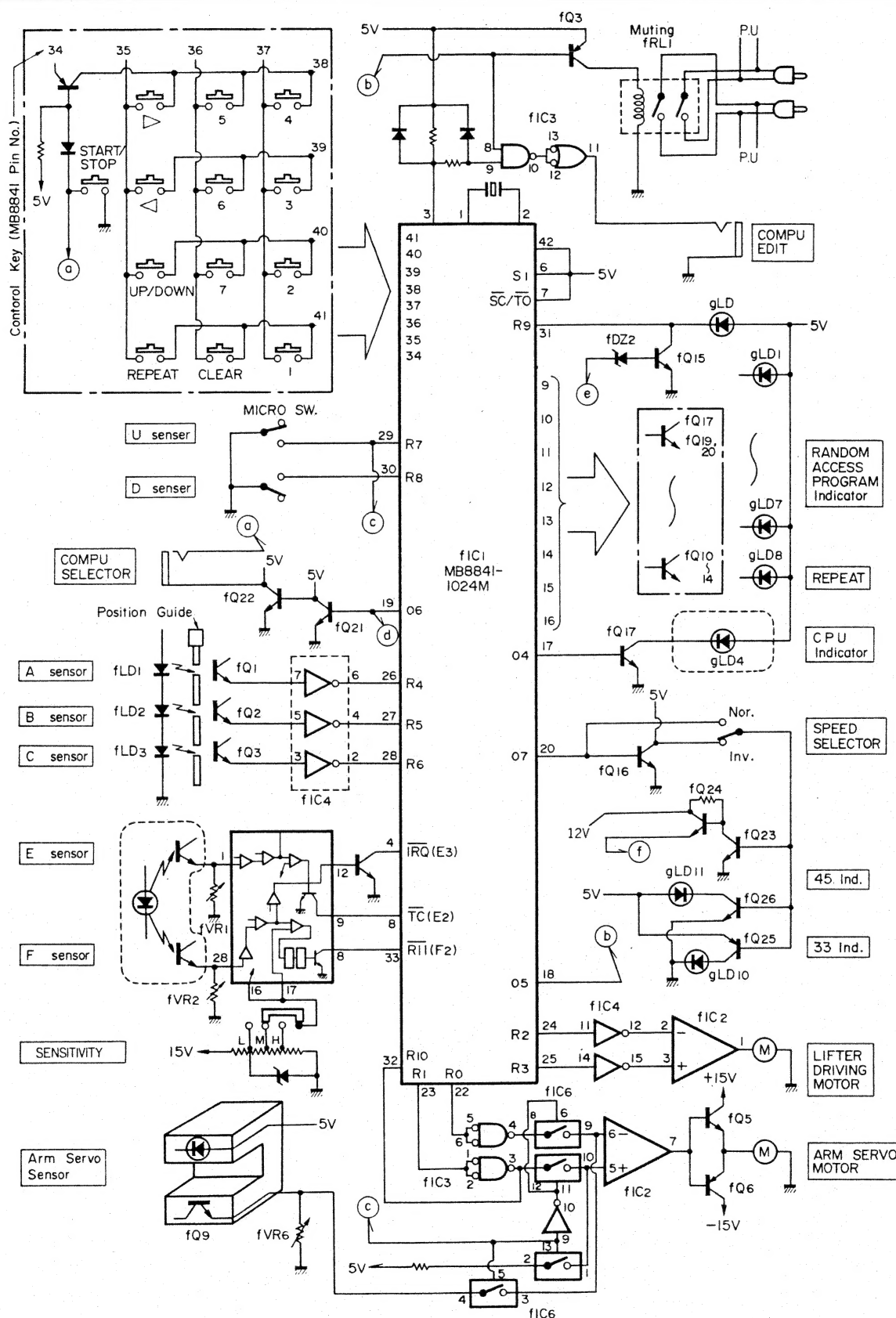
SANSUI ELECTRONICS (U.K.) LTD.:  
SANSUI ELECTRONICS G.M.B.H.:14-1, Izumi 2-chome, Suginami-ku, Tokyo 168 Japan  
PHONE: (03) 324-8891/TELEX: 232 2076 (International Division)1250 Valley Brook Ave. Lyndhurst, N.J. 07071 U.S.A.  
333 West Alondra Blvd. Gardena, California 90247 U.S.A.

3036 Koapaka St. Honolulu, Hawaii 96819 U.S.A.

Unit 10A, Lyon Industrial Estate, Rockware Avenue, Greenford, Middx UB6, OAA, England  
Paul Ehrlich Strasse 8, 6074 Rödermark 2, West Germany

# 1. BLOCK DIAGRAM

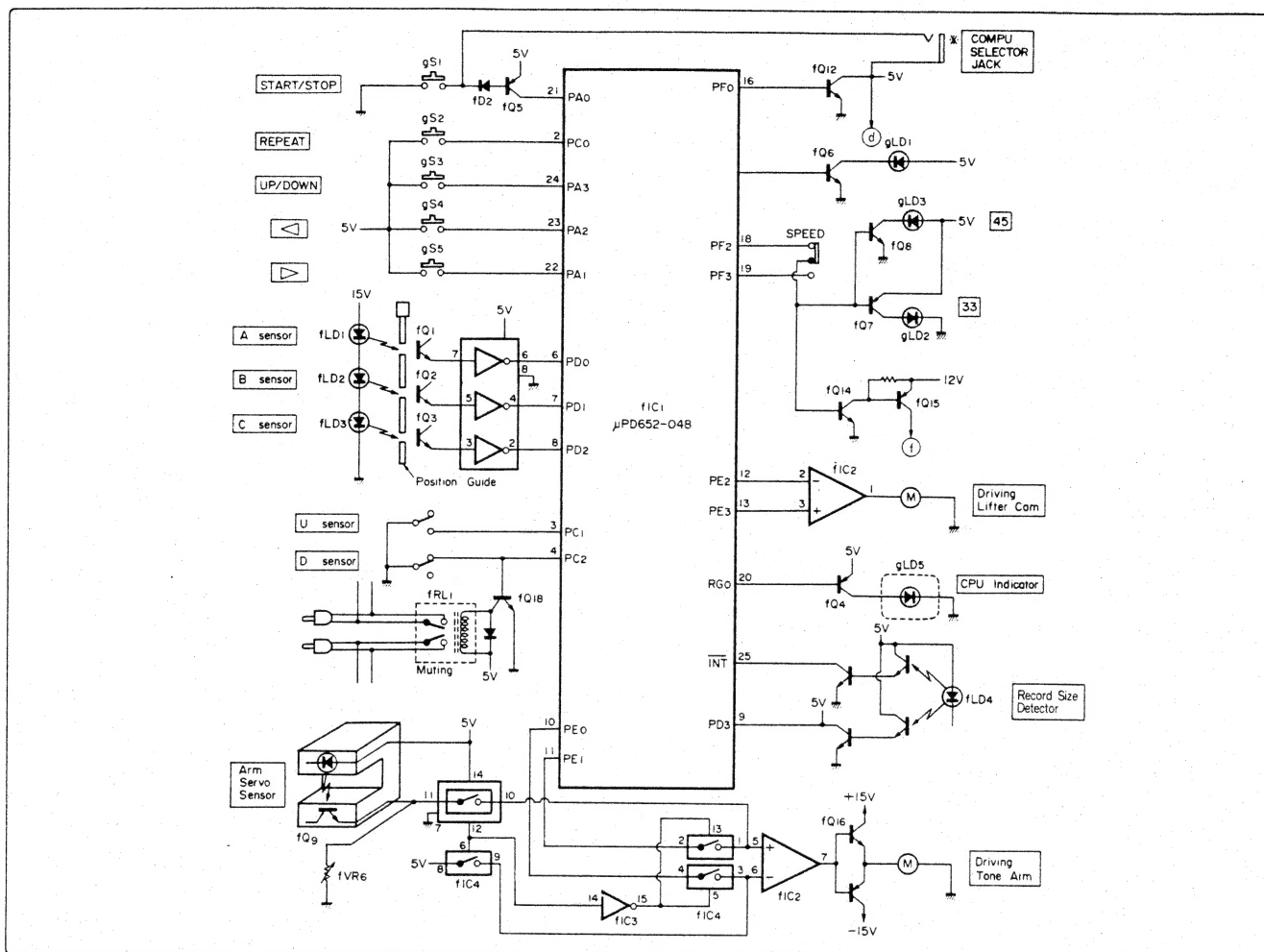
## 1-1. P-L50 Block Diagram



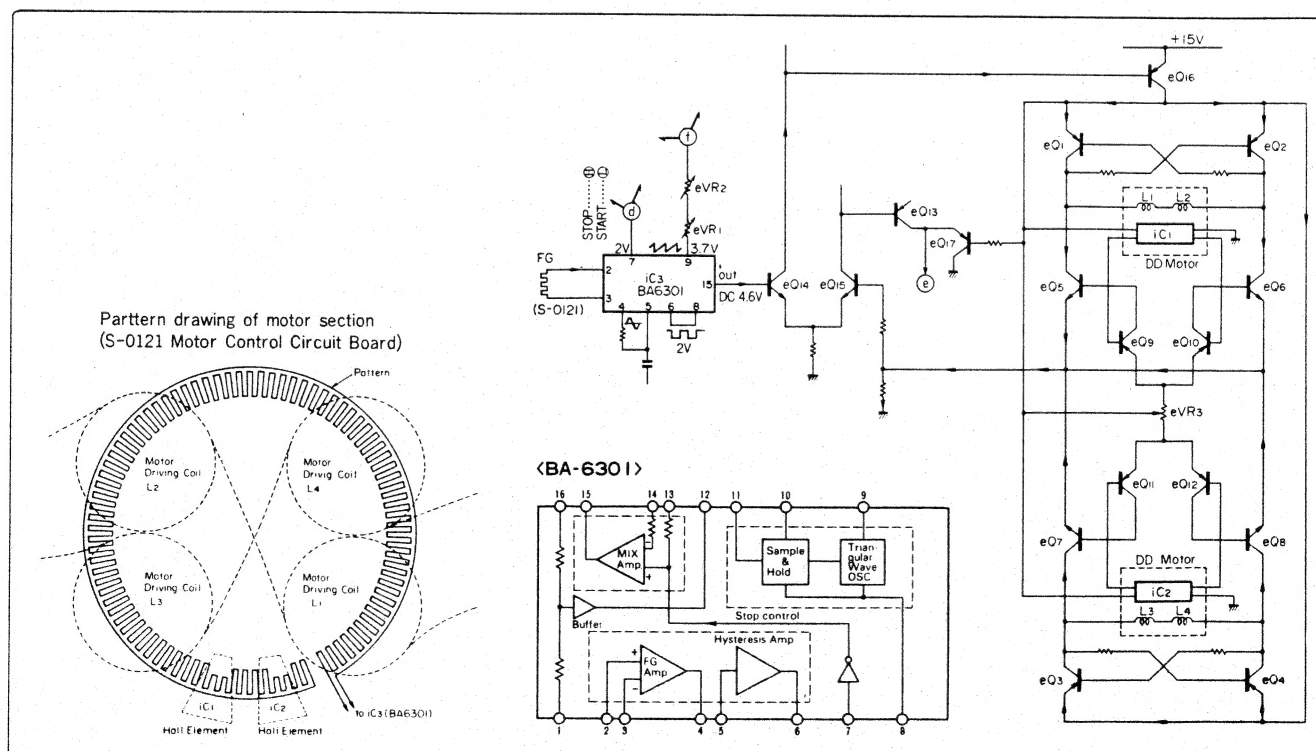
\* Since the electrical operations employed in P-L50 are similar to these of P-M7, the explanation of these circuits are omitted from this manual.



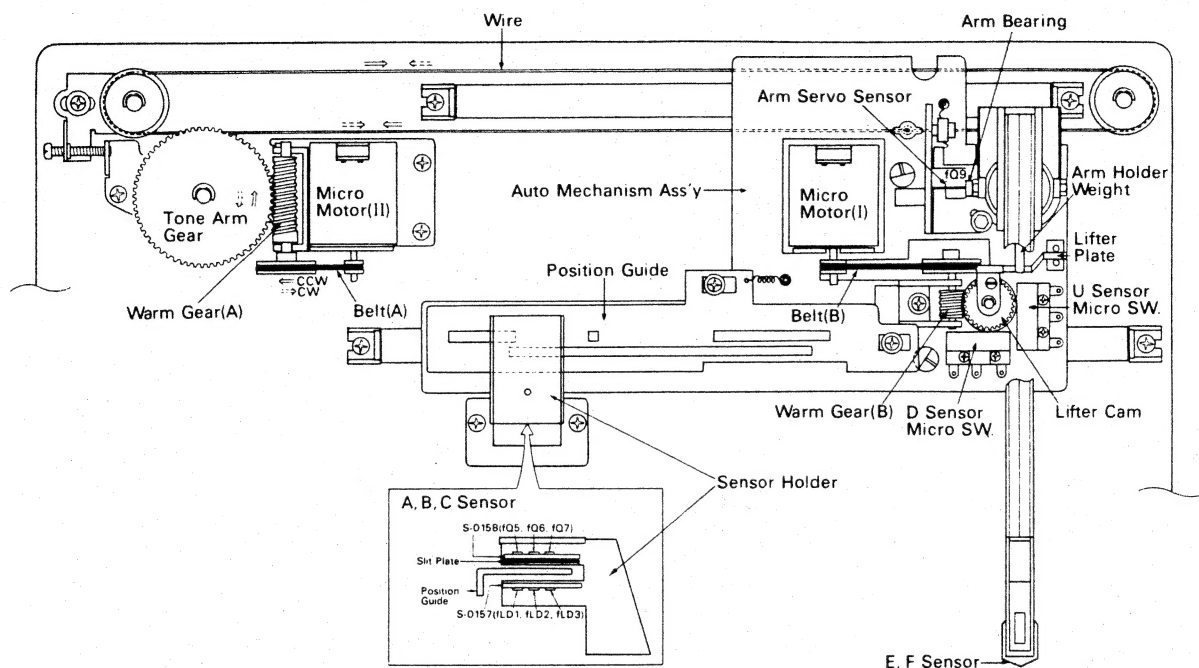
## 1-2. P-L40 Block Diagram



## 1-3. DD Motor Control Circuit



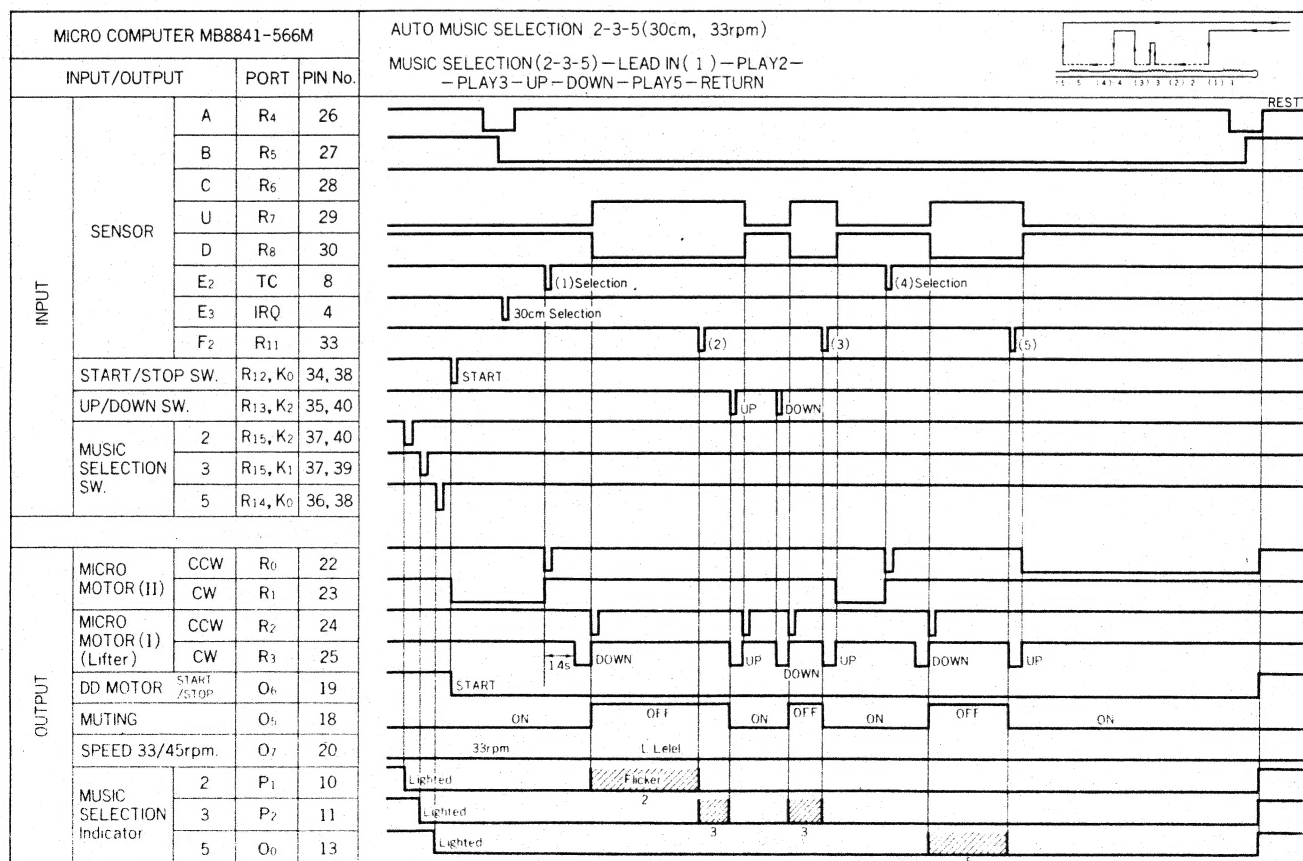
## 2. AUTO MECHANISM VIEW



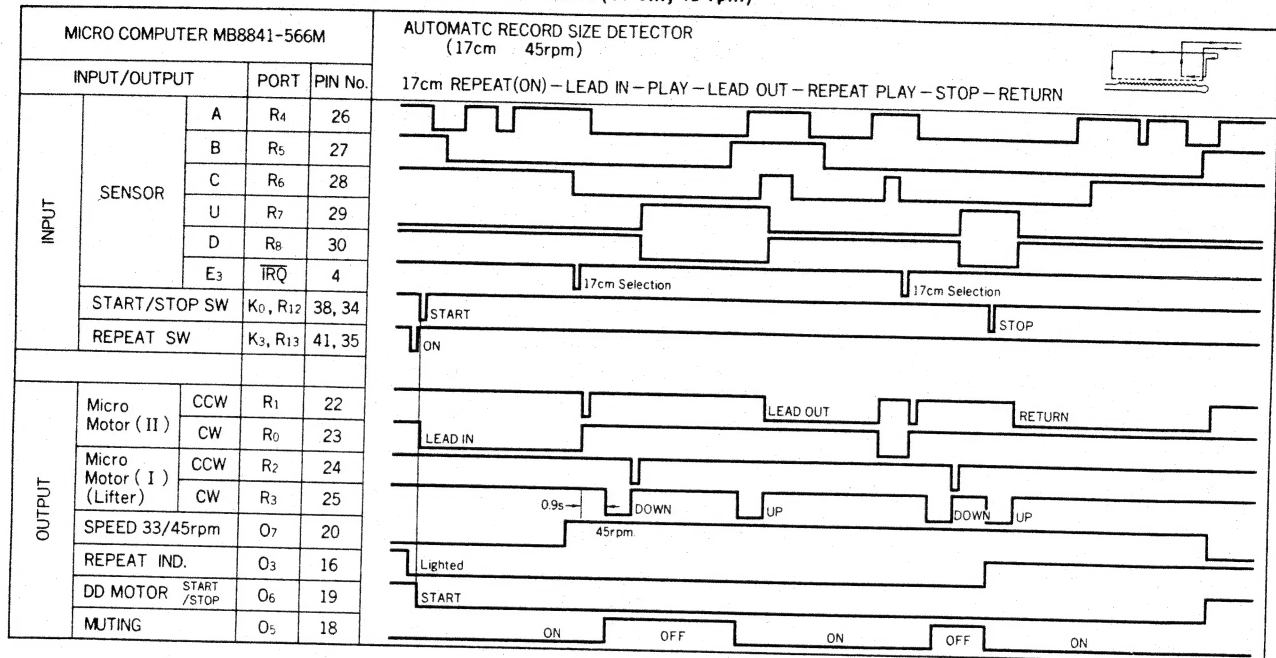
## 3. MICRO COMPUTER TIMING CHART

### 3-1. P-L50 Timing Chart

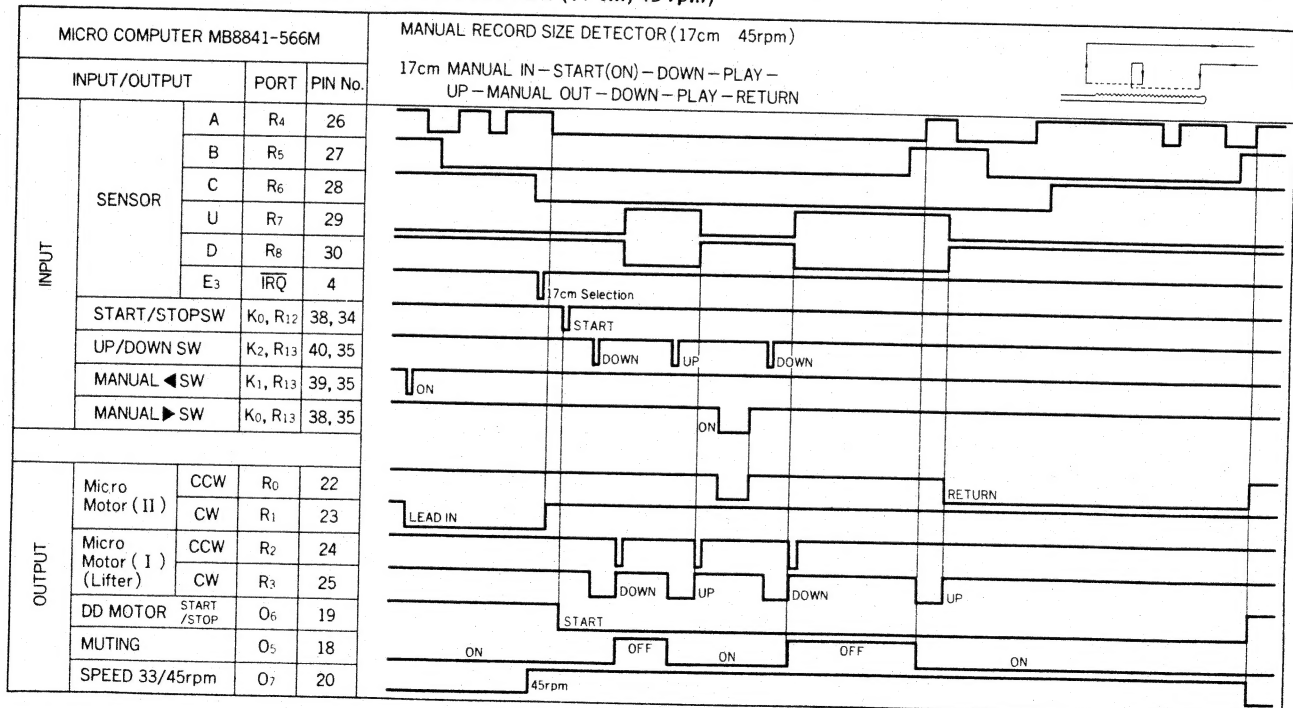
• Timing chart 1 AUTO MUSIC SELECTION 2-3-5 (30 cm, 33 rpm)



• Timing chart 2 AUTOMATIC RECORD SIZE DETECTOR (17 cm, 45 rpm)

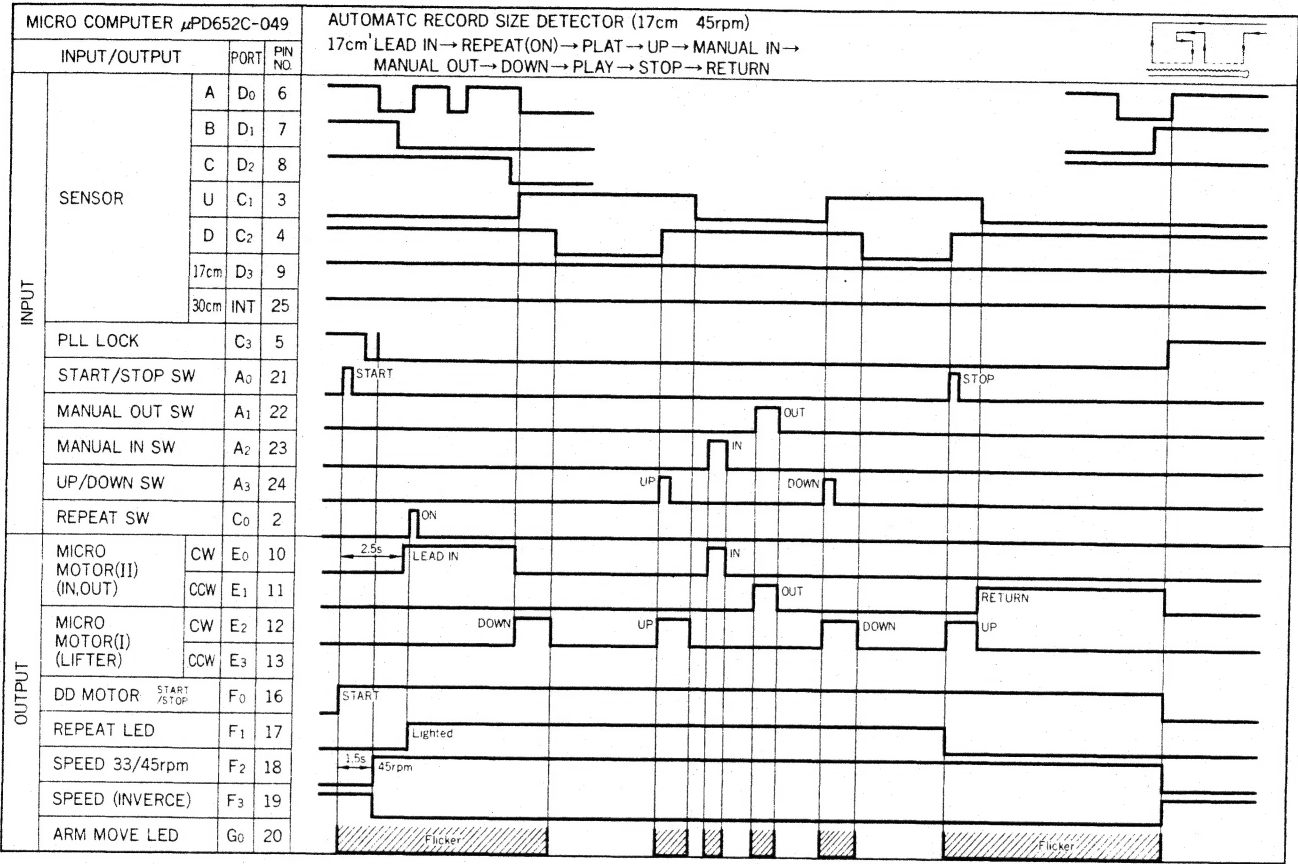


• Timing chart 3 MANUAL RECORD SIZE DETECTOR (17 cm, 45 rpm)

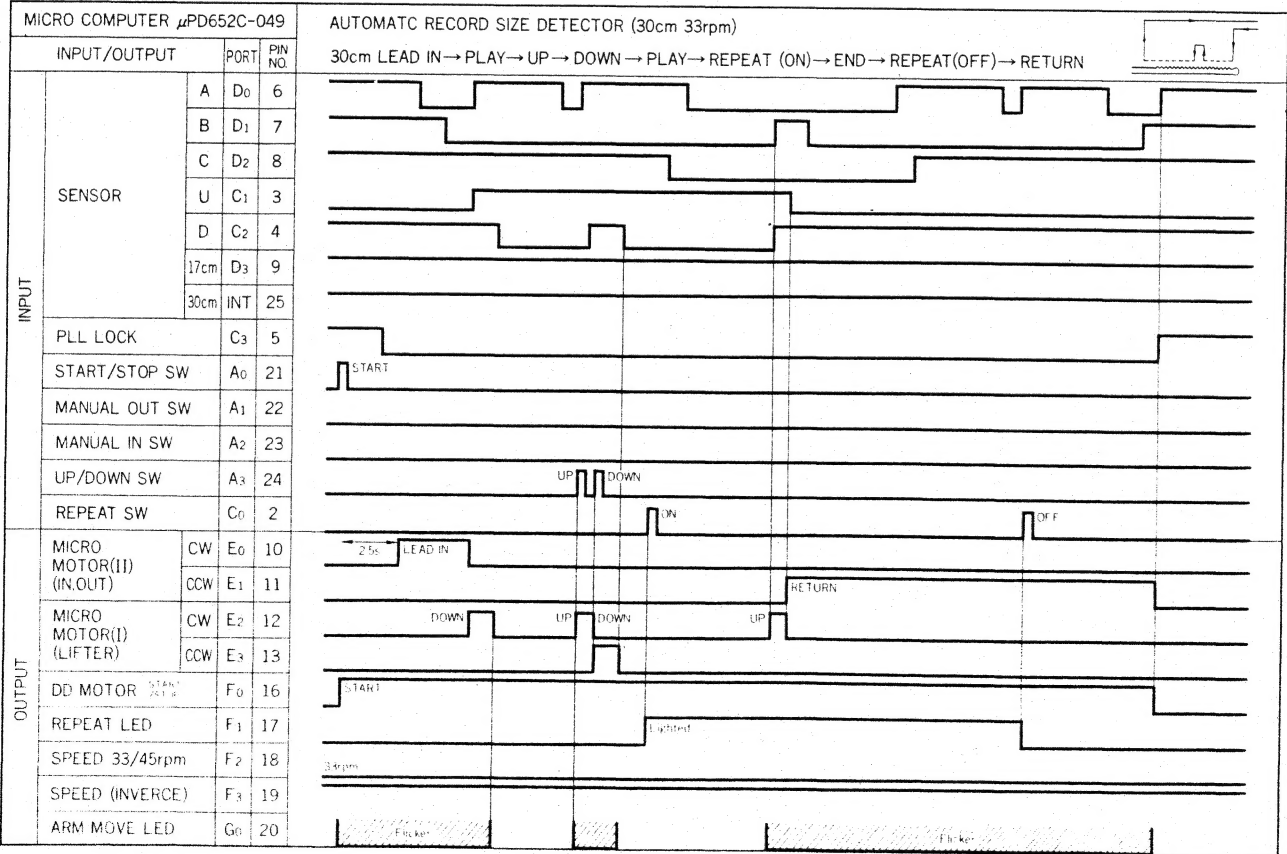


3-2. P-L40 Timing Chart

• Timing chart 1



• Timing chart 2



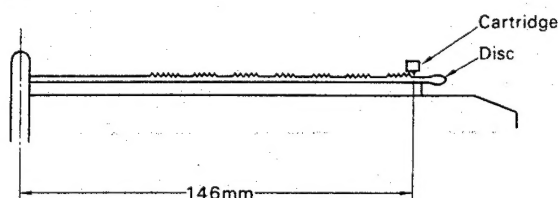
## 4. ADJUSTMENTS

Note: Before adjustments of 4-1 and 4-2, remove the arm rest only.

### 4-1. Adjustment of Automatic Disk Size Selection Operation (See Figs. 4-1, and 4-4)

- 1) By using 30 cm size record, actually carry out the automatic disk size operation (lead-in operation). Adjust the lead-in adjusting cam (See Fig. 4-4), so that the stylus tip may come down to the position (the lead-in groove position) 146 mm away from the disk center (See Fig. 4-1).
- 2) By using 17 cm size record, actually carry out the automatic disk size operation (lead-in operation). Confirm that the stylus tip may come down to the lead-in groove position.

Fig. 4-1



### 4-2. Adjustment of Automatic Music Selection Operation (See Figs. 4-2, 4-3 and 4-4)

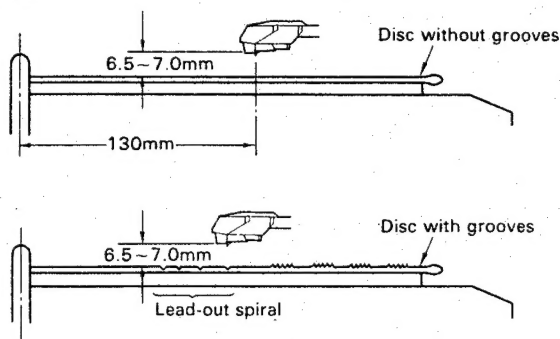
#### • Required disc and measuring instruments

- 1) Tester (DC voltmeter)  
Input impedance: 50kohm/V or more. (The higher, the better)
- 2) A vinyl chloride record disc without grooves or with wider lead-out spiral than usual.
- 3) A rule with graduation marks starting from the edge.

#### A. Tone Arm Height Adjustment

Adjust the height as shown in Fig. 4-2, by rotating the tone arm height adjusting screw (See Fig. 4-4) (Stop the stylus at a position about 130 mm away from the disk center.)

Fig. 4-2



#### B. Sensitivity adjustment of E sensor (P-L50)

##### 1. Setting

At the lifter-up position, in case of a record disc without grooves, stop the stylus at a position about 10 cm away from the disc center. In case of a record disc having grooves, stop the stylus lead-out spira.

##### 2. How to adjust (See Fig. 4-3, Top View on Page 14)

- a) Connect the DC voltmeter across the test terminal E and G (ground) and then adjust the voltage to DC 2.5 V by rotating the volume (fVR1) <E sensor adjustment>
- b) Move the tone arm downward. (Check that the stylus stays on a lead-out spiral.)
- c) Connect the DC voltmeter across test terminal F and G (ground) and then adjust the voltage to DC 2.5 V by rotating the volume (fVR2) <F sensor adjustment>

Fig. 4-3

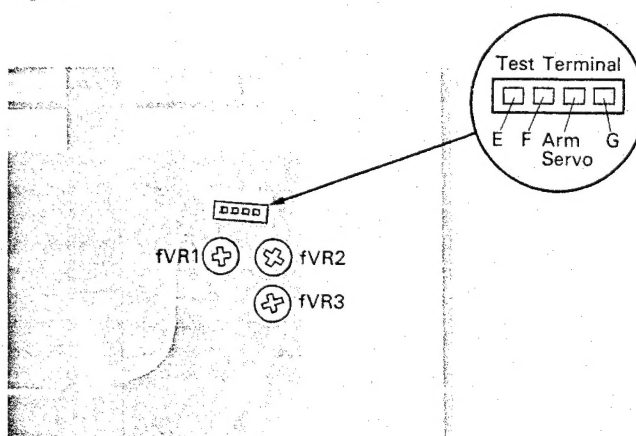
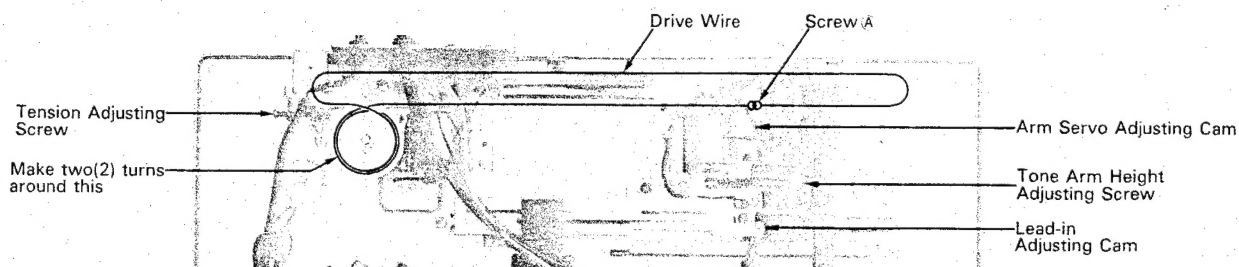


Fig. 4-4

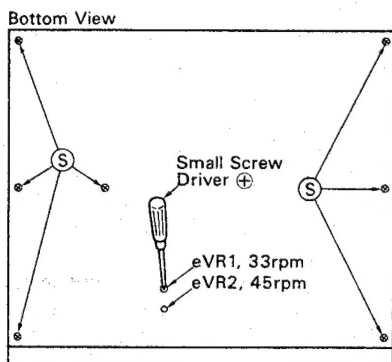




### 4-3. Speed Adjustment

- 1-a) Set the Speed Selector to Normal.
- 1-b) Mount a 30 cm size record and push the start/stop switch.
- 1-c) Adjust eVR1 on the D.D. Motor Control Circuit Board (See 4-5) so as to standstill the strobo marking pattern.
- 2-a) Set the Speed Selector to Normal.
- 2-b) Mount a 17 cm size record and push the start/stop switch.
- 2-c) Adjust eVR2 on the D.D. Motor Control Circuit Board (See 4-5) so as to standstill the strobo marking pattern.
- Set eVR3 (S-0121) center position.

Fig. 4-5



### 4-4. Lateral-direction Adjustment of E and F Sensor (P-L50)

1. Setting
  - a) Mount a record disc in which many music groove.
  - b) Set the sensitivity selection switch to H when the music interval groove is narrow, and to M when medium.
2. How to adjust (See Figs. 4-6 and 4-7)
  - a) Push the music selection switch for the first music, and also the start/stop switch.
  - b) Immediately after the stylus begins to come down, move the arm by hand so that the stylus may trace the disc groove beginning from a position 2 mm or more outward from the lead-over groove about 70 mm away from the disc center.
  - c) Immediately after the above tracing, push the lifter switch twice. Be sure to push it with a time interval of 1 sec or more, because of a ready operation to receive  $F_2$  signal.
  - d) Adjust the positions of E and F sensor by rotating the adjusting screws so that the muting switch can be turned ON (a click sound of relay action is heard) when the stylus has passed through the music interval groove. If the muting switch is turned ON earlier, rotate the adjusting screw clockwise to turn ON the switch later. (The thread pitch is 0.4 mm.)

Fig. 4-6

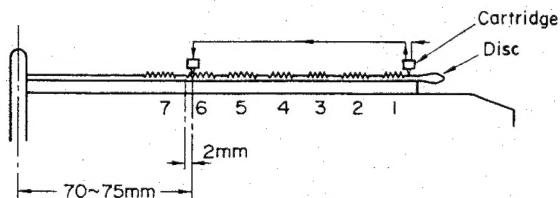
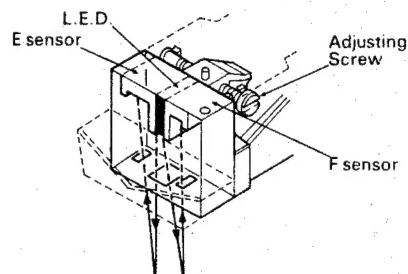


Fig. 4-7



### 4-5. Delay Adjustment of $E_2$ Signal (P-L50)

#### 1. Setting

Use the record disk in which many musics (about seven music tracks) are recorded, and select three music tracks having lead-over grooves, respectively, near positions 70 mm, 100 mm, and 130 mm away from the disc center.

#### 2. Adjustment (See Figs. 4-8 and 4-9, Top View on Page 14)

Perform the respective lead-in operations for three selected music tracks, and adjust the operations by rotating the volume (fVR3) as shown in Fig. 4-3 so that the stylus comes down on or a little before the lead-over grooves for the three music tracks. If the volume (fVR3) is rotated clockwise, the lift-down position of the stylus is shifted inward.

Note: In the lead-over grooves existing on a 70 mm-or-less from the center, the misplacing of the arm in detection position occurs inevitably.

Fig. 4-8

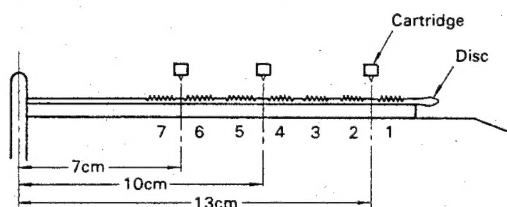
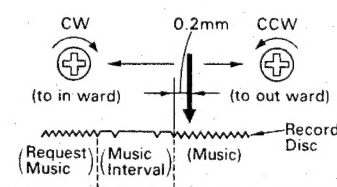


Fig. 4-9



Note: Remove the cabinet before adjustments of 4-6 and 4-7.

#### • How to remove the cabinet. (See Top View on Page 13)

- 1) Take off turntable sheet and turntable platter.
- 2) Remove the play case cover.
- 3) Loosen 2 screws in holes of top side.
- 4) Loosen 7 screws S to remove cabinet. (See Fig. 4-5)
- 5) Remove the cabinet upward slowly.

Note: Do not strike tone arm with the cabinet.

#### 4-6. Arm Servo Signal Adjustment

(See Figs. 4-3, 4-10, 4-11)

- 1) Move the tone arm leftward and stop it within the record-playable range by depressing the MANUAL key
- 2) Connect the DC voltmeter shown in Fig. 4-10.
- 3) The tone arm servo level goes up more when the tone arm is moved rightward slightly by hand.
- 4) Adjust the voltage of "step 3)" to DC 4 ~ 4.5 V by rotating the volume (FVR6).
- 5) Connect the DC voltmeter across the test terminal arm servo and G (ground) and move the tone arm downward by depressing UP/DOWN key.
- 6) Adjust the arm servo adjusting cam so that the tone arm does not move in either direction, in the state where the tone arm is in the down position, then confirm that indication on DC voltmeter is within  $-IV \pm IV$ .
- 7) Check that the tone arm will not move in either direction when the UP/DOWN key is depressed repeatedly, if necessary, rotating the volume (FVR6) slightly.

Fig. 4-10

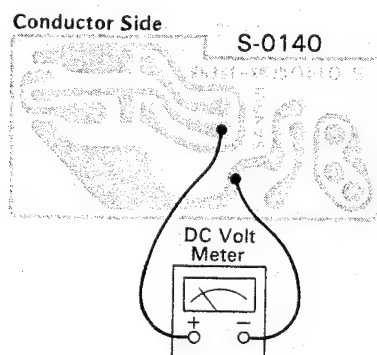
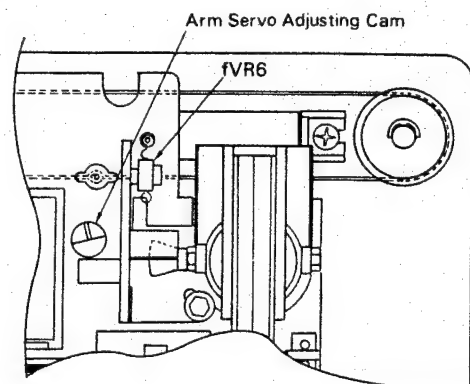


Fig. 4-11



#### 4-7. Tension Adjustment of Tone Arm Driving Wire (See Fig. 4-4)

Move the tone arm by depressing the MANUAL key and adjust the tension adjusting screw so that the wire does not slip along the driving gear.

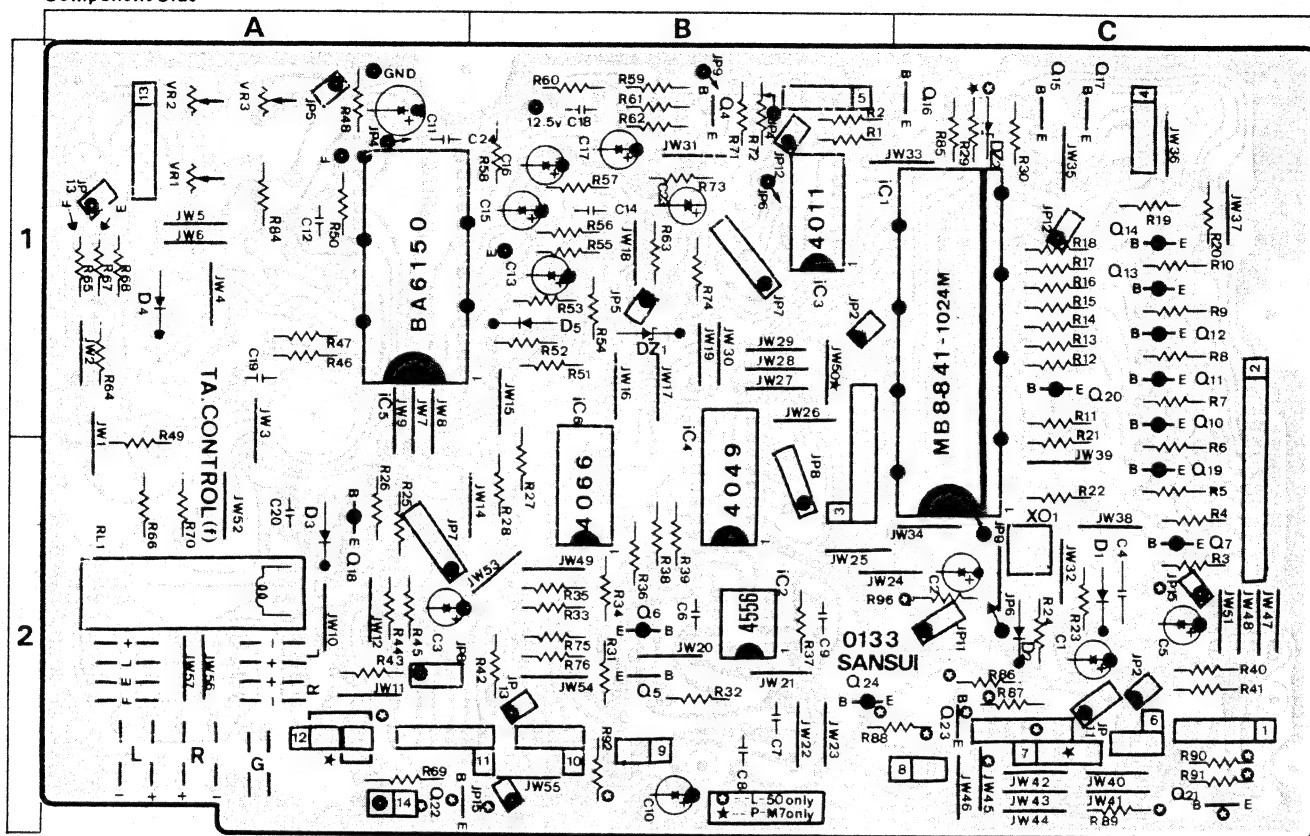
Note: Care must be taken to give too much tension.

## 5. PARTS LOCATION & PARTS LIST

### 5-1. S-0133 T.A. Control Circuit Board (Stock No. 13157501) <P-L50>

• Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.

Component Side



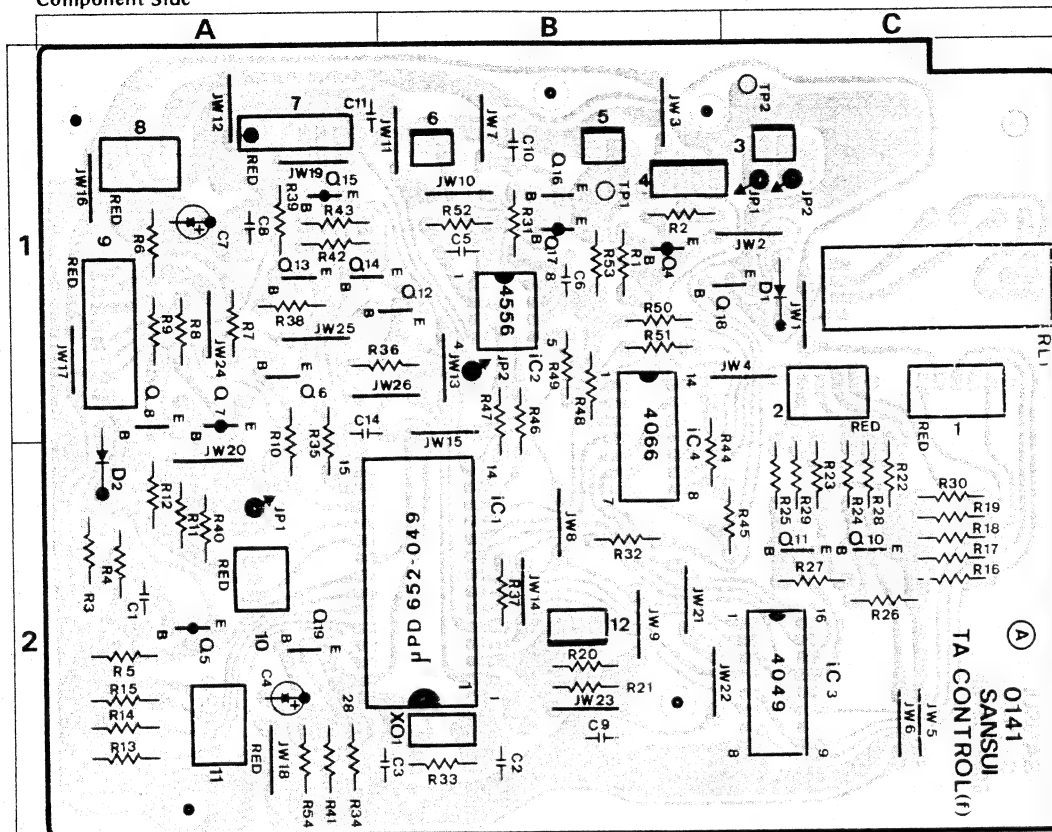
Parts List

Parts No.	Stock No.	Description
fXO1	46149200	KMFC-1001S
• Transistor		
fQ4	46367101	2SC2603
	or 46367301	2SC2458
	or 46367501	2SC945A
fQ5	07263501	2SD600
	or 46149401	2SD794
fQ6	07263401	2SB631
	or 46149301	2SB744
fQ7	46367001	2SA1115
	or 46367201	2SA1048
	or 46367401	2SA733A
fQ10~14	46367001	2SA1115
	or 46367201	2SA1048
	or 46367401	2SA733A
fQ15~17	46367101	2SC2603
	or 46367301	2SC2458
	or 46367501	2SC945A
fQ18~20	46367001	2SA1115
	or 46367201	2SA1048
	or 46367401	2SA733A
fQ21~23	46367101	2SC2603
	or 46367301	2SC2458
	or 46367501	2SC945A
fQ24	46367001	2SA1115
	or 46367201	2SA1048
	or 46367401	2SA733A
• IC		
fIC1	46371200	MB8841
fIC2	46160700	NJM4556
fIC3	03604000	MSM4011RS
	or 03604100	TC4011P
	or 07207200	MB84011BM

Parts No.	Stock No.	Description
fIC4	03611800	MSM4049RS
	or 46160400	MS84049B
fIC5	46321300	BA6150
fIC6	07264600	MSM4066RS
	or 46164300	MB84066B
• Diode		
fD1~5	03117600	1S2473D
• Zener Diode		
fDZ1	46113300	05Z10
fDZ2	46108700	05Z2.2
fR69	46230200	1kΩ 1/2W N.I.R.
• Capacitor		
fC4	07214600	0.15μF 25V C.C.
fC7,8	07216200	0.022μF 25V C.C.
fC11	46407600	22μF 25V E.C.
fC13	46411200	2.2μF 50V E.C.
fC15	46411100	1μF 50V E.C.
fC16,17	46407400	0.47μF 50V E.C.
fC19,20	07211700	0.001μF 25V C.C.
fC24	07216200	0.022μF 25V C.C.
fVR1,2	10351900	100kΩ (B) SVR, E-F Sensor Sensitivity adj.
fVR3	10352300	470kΩ (B) SVR, DELAY adj.
fRL1	46173300	Relay

## 5-2. S-0141 T.A. Control Circuit Board (Stock No. 13158501) &lt;P-L40&gt;

Component Side



## Parts List

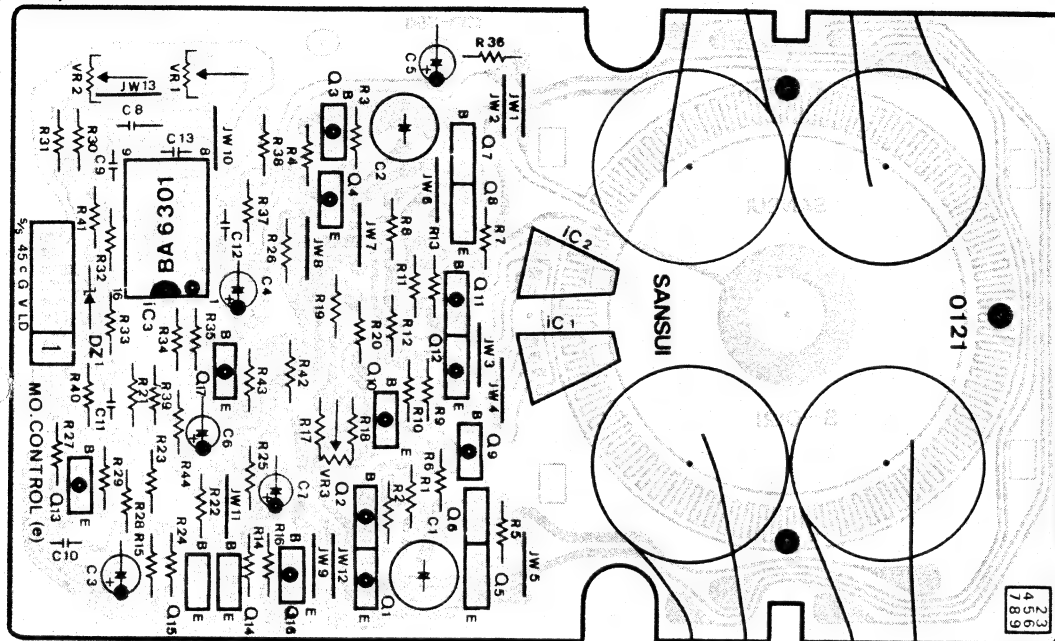
Parts No.	Stock No.	Description
• Transistor		
fQ4, 5, 7	46367001	2SA1115
	or 46367201	2SA1048
	or 46367401	2SA733A
fQ6, 8	46367101	2SC2603
	or 46367301	2SC2458
	or 46367501	2SC945A
fQ10~14	46367101	2SC2603
	or 46367301	2SC2458
	or 46367501	2SC945A
fQ15	46367001	2SA1115
	or 46367201	2SA1048
	or 46367401	2SA733A
fQ16	07263501	2SD600
	or 46149401	2SD794
fQ17	07263401	2SB631
	or 46149301	2SB744
fQ18, 19	46367101	2SC2603
	or 46367301	2SC2458
	or 46367501	2SC945A

Parts No.	Stock No.	Description
• IC		
fIC1	46371100	$\mu$ PD652C - 049
fIC2	46160700	NJM4556
fIC3	03611800	MSM4049RS
	or 46160400	MB84049B
fIC4	07264600	MSM4066RS
	or 46164300	MB84066B
fXO1	46396200	Ceramic Filter
• Diode		
fD1	03117600	1S2473D
• Capacitor		
fC1, 14	07216200	0.022 $\mu$ F 25V C.C.
fC2, 3	46137200	220pF 50V C.C.
fC8~11	07216200	0.022 $\mu$ F 25V C.C.
fRL1	46173300	Relay

- Note: The circuit boards, S-0121, S-0157, S-0158, S-0134, S-0135, S-0136, S-0137, S-0138, S-0139, S-0140, S-0142, S-0143, S-0144, S-0146, S-0147 & S-0163 are not supplied as the assembled. However, the individual parts on the circuit boards are provided orders.

### 5-3. S-0121 DD Motor Control Circuit Board <P-L50/L40>

Component Side



#### Parts List

Parts No.	Stock No.	Description
• Transistor		
eQ1	46359701	2SA952
eQ2	46359701	2SA952
eQ3	46359701	2SA952
eQ4	46359701	2SA952
eQ5	46359801	2SC2001
eQ6	46359801	2SC2001
eQ7	46359801	2SC2001
eQ8	46359801	2SC2001
eQ9	46367401	2SA733A
	or 46367001	2SA1115
	or 46367201	2SA1048
eQ10	46367401	2SA733A
	or 46367001	2SA1115
	or 46367201	2SA1048
eQ11	46367401	2SA733A
	or 46367001	2SA1115
	or 46367201	2SA1048
eQ12	46367401	2SA733A
	or 46367001	2SA1115
	or 46367201	2SA1048
eQ13	46367001	2SA1115
	or 46367201	2SA1048
eQ14	46367101	2SC2603
	or 46367301	2SC2458
eQ15	46367101	2SC2603
	or 46367301	2SC2458
eQ16	46149301	2SB744
eQ17	46367001	2SA1115
	or 46367201	2SA1048

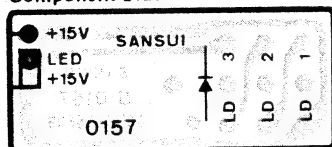
Parts No.	Stock No.	Description
• IC		
eIC1	46354301	H-300BC
eIC2	46354301	H-300BC
eIC3	46354400	BA6301
• Zener Diode		
eDZ1	46113900	05Z12
eR41	00205500	240k $\Omega$ 1/4W M.R.
eC1	08451100	22 $\mu$ F 16V E.B.
eC2	08451100	22 $\mu$ F 16V E.B.
eC10	07216600	47000pF 25V C.C.
eC11	07216600	47000pF 25V C.C.
eC12	07211700	1000pF 25V C.C.
eC13	07211700	1000pF 25V C.C.
eVR1	46366600	100k $\Omega$ (B) S.V.R., 33 r.p.m.
eVR2	07241700	200k $\Omega$ (B) S.V.R., 45 r.p.m.
eVR3	07241000	1k $\Omega$ (B) S.V.R., Wow and flutter



## 5-4. S-0157 A, B, C Sensor L.E.D. Circuit Board

&lt;P-L50/L40&gt;

Component Side



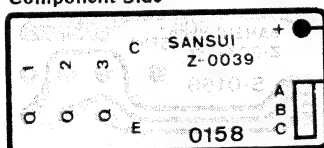
## Parts List

Parts No.	Stock No.	Description
fLD1~3	46150400	LED TLR-121

## 5-5. S-0158 A, B, C Sensor Photo TR Circuit Board

&lt;P-L50/L40&gt;

Component Side

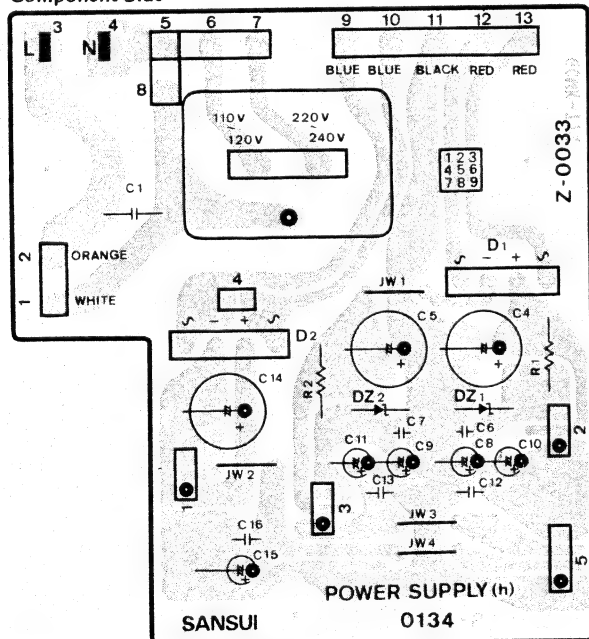


## Parts List

Parts No.	Stock No.	Description
•Photo Transistor fQ1~3	46160000	TPS605

## 5-6. S-0134 Power Supply Circuit Board &lt;P-L50/L40&gt;

Component Side



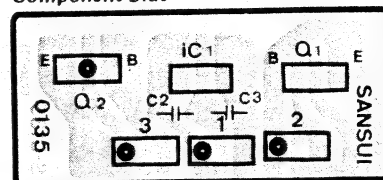
## Parts List

Parts No.	Stock No.	Description
•Diode hD1,2	03117000	RB-152
•Zener Diode hDZ1,2	46104500	05Z16-X
•Resistor hR1,2	46230200	1kΩ 1/2W N.I.R.
•Capacitor hC1	46425800	0.01μF 400V C.C.
hC6,7	07213200	0.01μF 25V C.C.

## 5-7. S-0135 Voltage Control TR Circuit Board

&lt;P-L50/L40&gt;

Component Side

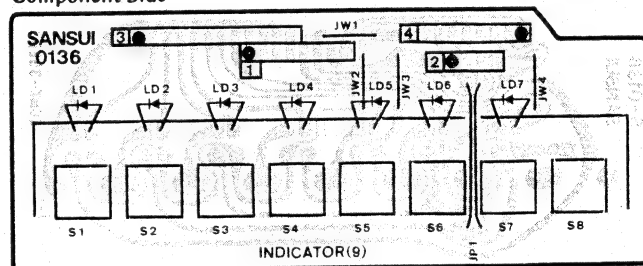


## Parts List

Parts No.	Stock No.	Description
•Transistor hQ1	03083902	2SD313
hQ2	46149301	2SB744
•IC hIC1	07183500 or 46144200	μPC78M05H NJM78M05A
•Capacitor hC2,3	07214000	0.047μF 25V C.C.

## 5-8. S-0136 PROGRAM Switch &amp; Indicator Circuit Board &lt;P-L50&gt;

Component Side

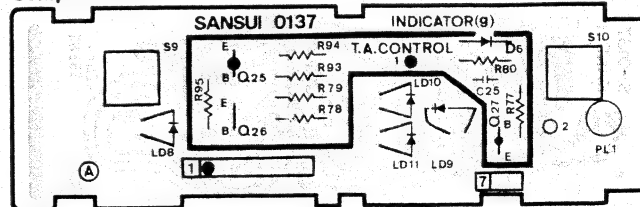


## Parts List

Parts No.	Stock No.	Description
gLD1~7	07250900	LED TLG-123
gSW1~8	46395900	Push SW., RANDOM ACCESS PROGRAM

## 5-9. S-0137 Control Switch &amp; Indicator Circuit Board &lt;P-L50&gt;

Component Side



## Parts List

Parts No.	Stock No.	Description
•Transistor fQ25, 26	07194801 or 03059501 or 07299701	2SC1815 2SC945 2SC2603
fQ27	07194701 or 07197001 or 07299601	2SA1015 2SA733 2SA1115
fc25	07213600	0.022μF 25V C.C.

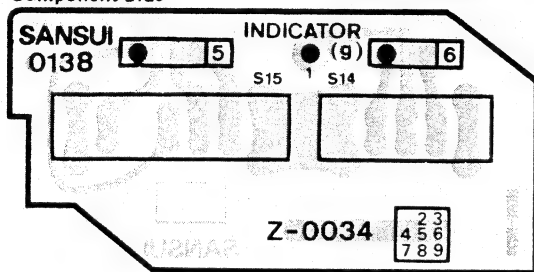
to be continued▶

Parts List <S-0137>

Parts No.	Stock No.	Description
•LED		
gLD8, 10,	46095200	LED TLR-123
11		
gLD9	07250900	LED TLG-123
gPL1	46438300	Lamp, 12V 0.1A
gSW9, 10	46395900	Push SW., START/STOP, REPEAT

5-10. S-0138 SPEED & SENSITIVITY Switch Circuit Board <P-L50>

Component Side

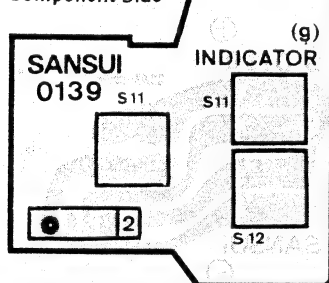


Parts List

Parts No.	Stock No.	Description
gSW14	07249800	Slide SW., SPEED
gSW15	07249900	Slide SW., SENSITIVITY

5-11. S-0139 T.A. Control Switch Circuit Board <P-L50>

Component Side

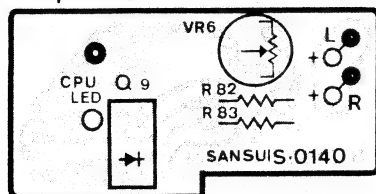


Parts List

Parts No.	Stock No.	Description
gSW11 ~ 13	46371600	Push SW., UP/DOWN, MANUAL

5-12. S-0140 Arm Servo Circuit Board <P-L50/L40>

Component Side

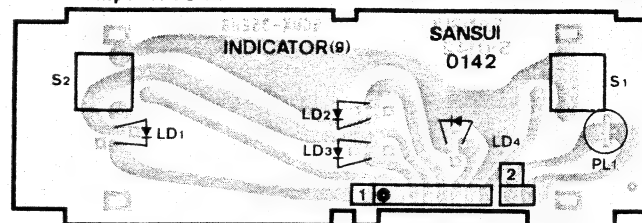


Parts List

Parts No.	Stock No.	Description
vVR6	10351300	10kΩ (B) SVR,
fQ9	46395800	Photo Coupler, GP-LS04

5-13. S-0142 Control Switch & Indicator Circuit Board <P-L40>

Component Side

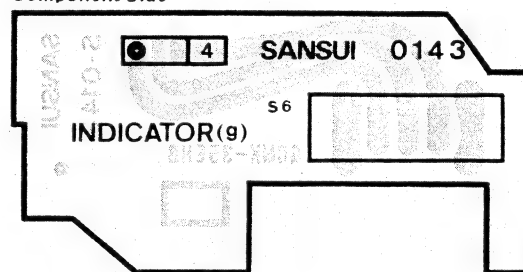


Parts List

Parts No.	Stock No.	Description
gLD1, 3, 4	46095200	LED TLR123
gLD2	07250900	LED TLG123
gPL1	46438300	Lamp, 12V 0.1A
gSW1, 2	46395900	Push SW., START/STOP, REPEAT

5-14. S-0143 SPEED Switch Circuit Board <P-L40>

Component Side

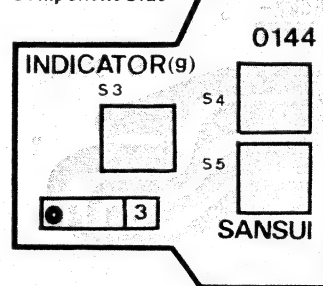


Parts List

Parts No.	Stock No.	Description
gSW14	07249800	Slide SW., SPEED

5-15. S-0144 T.A. Control Switch Circuit Board <P-L40>

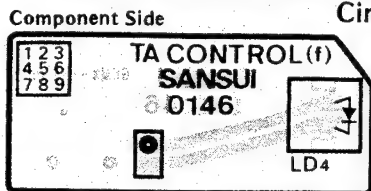
Component Side



Parts List

Parts No.	Stock No.	Description
gSW11 ~ 13	46371600	Push SW., UP/DOWN, MANUAL

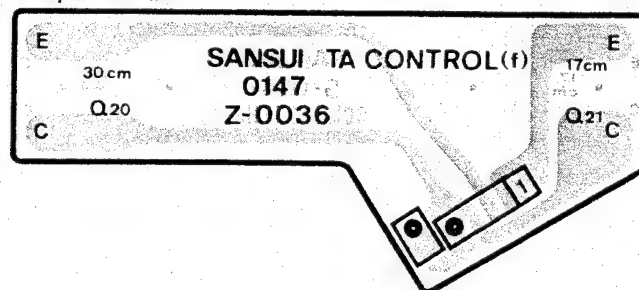
5-16. S-0146 Record Size Sensor L.E.D.  
Circuit Board <P-L40>



Parts List

Parts No.	Stock No.	Description
fLD4	46396000	LED GL-520

5-17. S-0147 Record Size Sensor Circuit Board  
Component Side <P-L40>



Parts List

Parts No.	Stock No.	Description
●Photo Transistor fQ20, 21	03900100	PH101

5-18. S-0163 CPU Indicator Circuit Board <P-L40>

Parts List

Parts No.	Stock No.	Description
gLD5	46150400	LED TLR-121

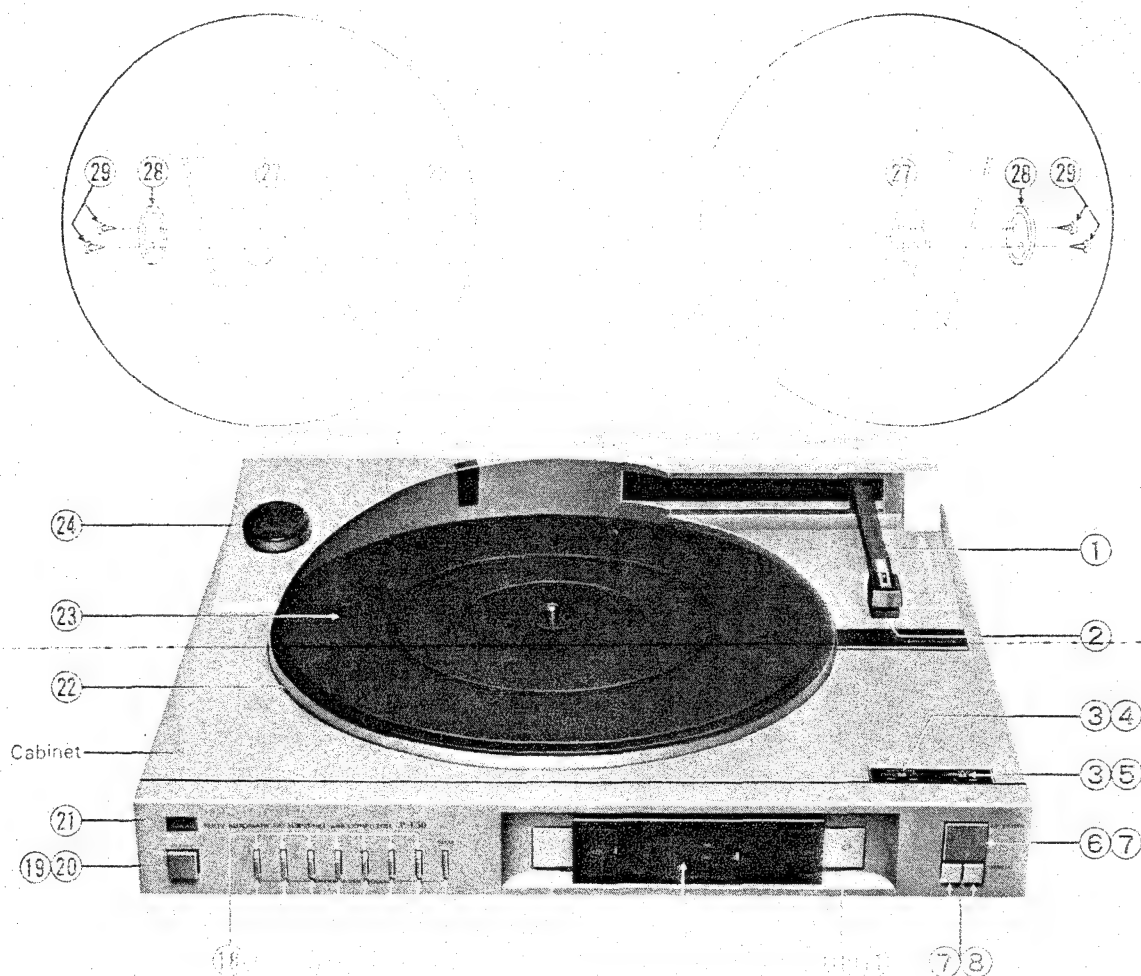
• Abbreviations

C.R. : Carbon Resistor	E.B. : Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	E.B.L. : Low Leak Bi-Polar Electrolytic Capacitor
Ce.R. : Cement Resistor	Ta.C. : Tantalum Capacitor
M.R. : Metal Film Resistor	F.C. : Film Capacitor
F.R. : Fusing Resistor	M.P. : Metalized Paper Capacitor
N.I.R. : Non-Inflammable Resistor	P.C. : Polystyrene Capacitor
C.C. : Ceramic Capacitor	G.C. : Gimmic Capacitor
C.T. : Ceramic Capacitor, Temperature Compensation	V.R. : Variable Resistor
E.C. : Electrolytic Capacitor	S.V.R. : Semi Variable Resistor
E.L. : Low Leak Electrolytic Capacitor	S.W. : Switch

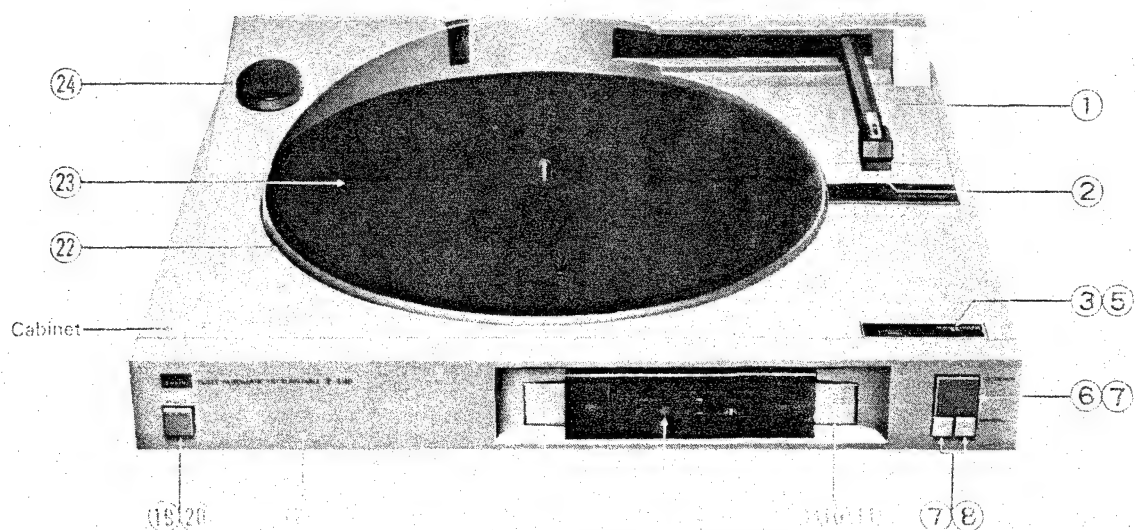
## 6. OTHER PARTS

### 6-1. Front View

#### A) P-L50



#### B) P-L40



## Parts List &lt;Front View&gt; (P-L50/L40)

Parts No.	Stock No.	Description
<Common Parts>		
1	18037700	Tone Arm Ass'y with Cartridge SV-S505 (P-L40)
	18037600	Tone Arm Ass'y with Cartridge SV-S505 & Sensor (P-L50)
2	13197200	Stylus, SN-S505
3	13141600	Slide Knob, SPEED, SENSITIVITY
4	07249900	Slide SW., SENSITIVITY (P-L50)
5	07249800	Slide SW., SPEED
7	46371600	Push SW., UP/DOWN, MANUAL
*9	07926600	Push Knob, START/STOP
*10	07962600	Cushion
11	46395900	Push SW., START/STOP, REPEAT, RANDOM ACCESS PROGRAM, CLEAR
*14	13166400	Display Case Cover
*15	07926500	Push Knob, REPEAT
18	07931700	Indicator, RANDOM ACCESS PROGRAM
20	46364300	Push SW., POWER
22	13143800	Turntable Platter (P-L40)
	13159700	Turntable Platter (P-L50)
23	13146700	Turntable Sheet (P-L40)
	13099110	Turntable Sheet (P-L50)
24	13012300	EP Adaptor
	13145100	Insulator
25	13187200	Side Hinge (L)
26	13187300	Side Hinge (R)

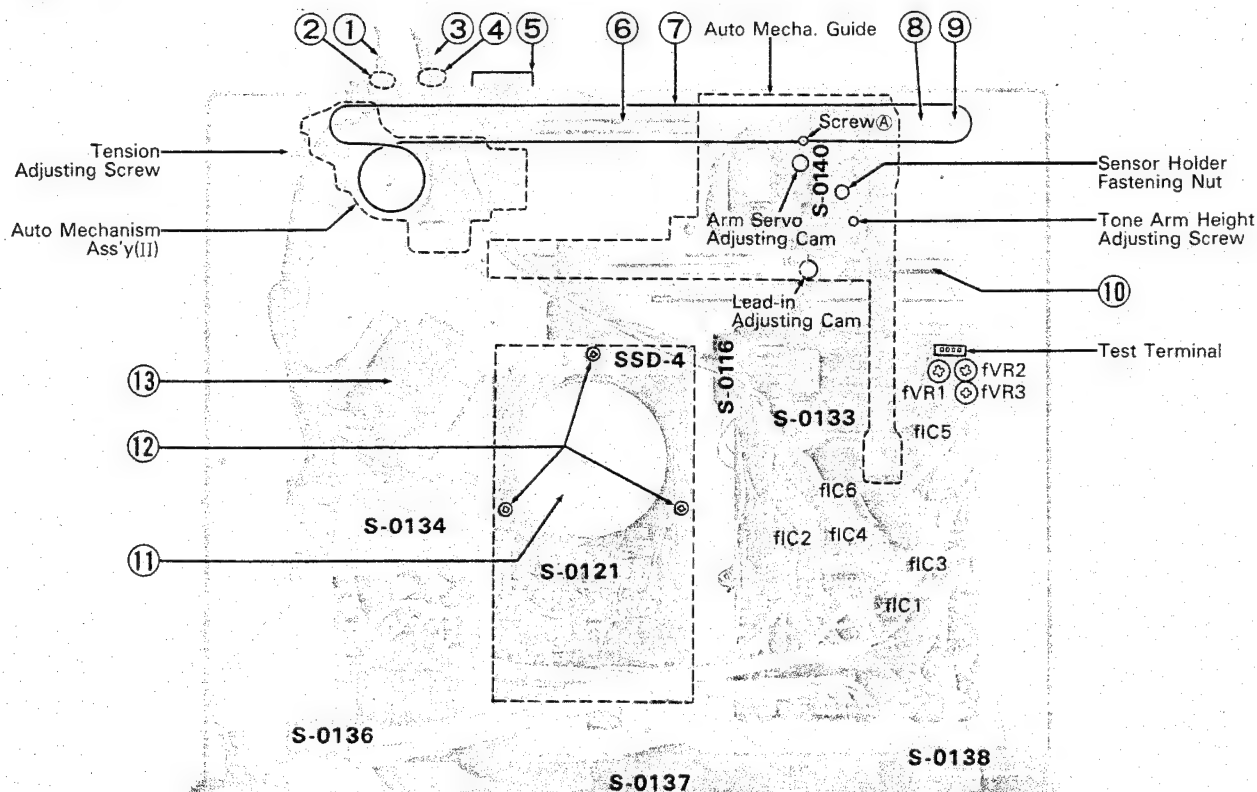
1303 7900 P-L50

Parts No.	Stock No.	Description
<Silver Model>		
6	13139700	Push Knob, UP/DOWN
8	13139500	Push Knob, MANUAL
*12	13175300	Display Holder
*13	13146100	Display Plate
16	07930900	Push Knob, CLEAR (P-L50)
17	07931100	Push Knob, RANDOM ACCESS PROGRAM (P-L50)
19	07971210	Push Knob, POWER
21	13155300	Front Panel (P-L40)
	13155100	Front Panel (P-L50)
27	13163000	Dust Cover Ass'y
28	13113800	Hinge Cap
29	13115100	Screw, M2.6 x 8
<Black Model>		
6	13139800	Push Knob, UP/DOWN
8	13139600	Push Knob, MANUAL
*12	13145800	Display Holder
*13	13169300	Display Plate
16	07931000	Push Knob, CLEAR (P-L50)
17	07931200	Push Knob, RANDOM ACCESS PROGRAM (P-L50)
19	07911210	Push Knob, POWER
21	13155400	Front Panel (P-L40)
	13155200	Front Panel (P-L50)
27	13163100	Dust Cover Ass'y
28	13187400	Hinge Cap
29	13187500	Screw, M2.6 x 8

• NOTE: The mark "\*" parts are shown in Fig. 6-1.

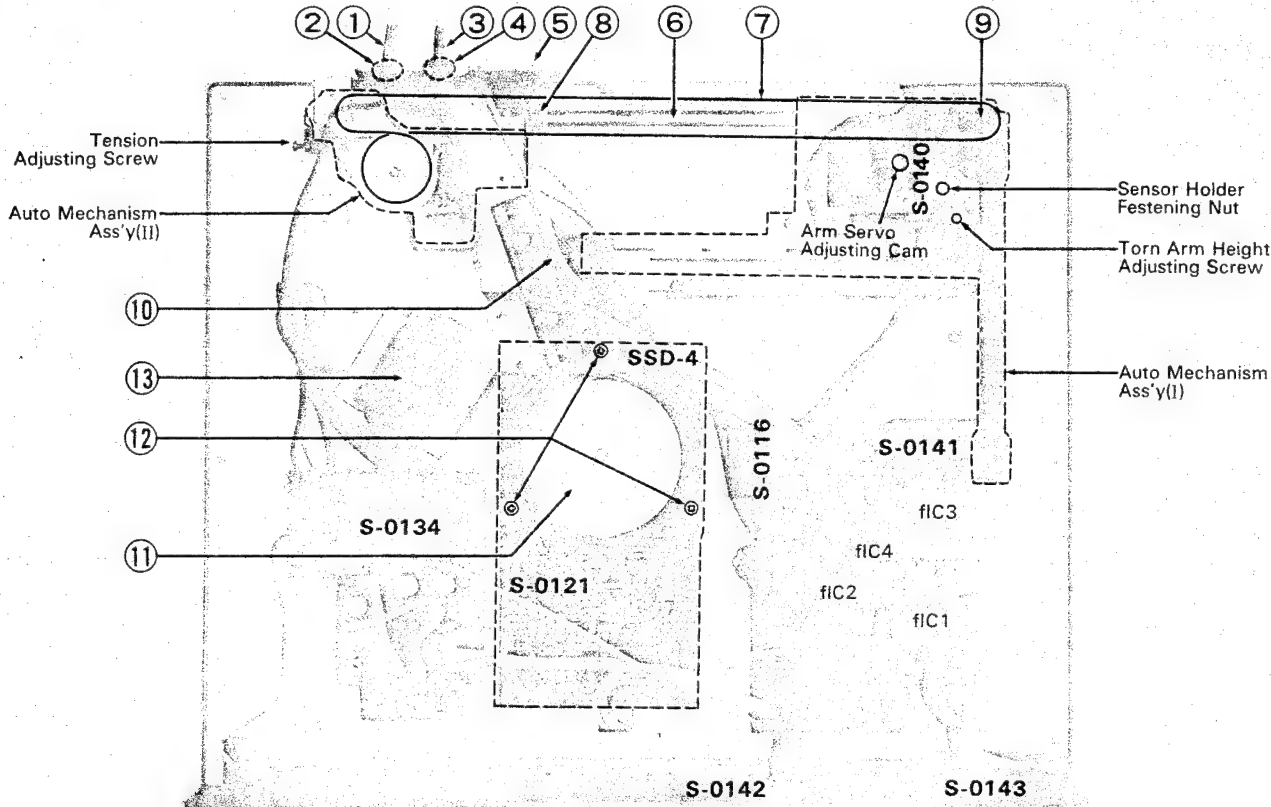
## 6-2. Top View

## A) P-L50





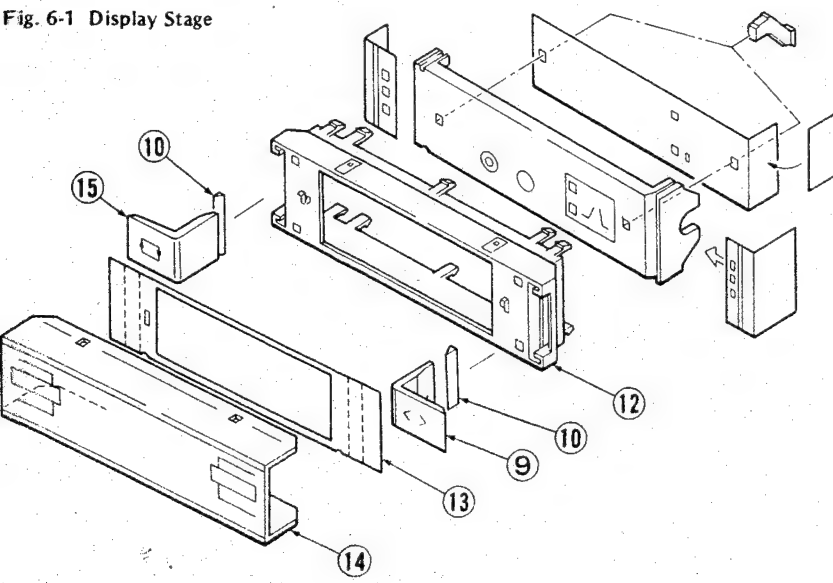
B) P-L40



Parts List <Top View> (P-L50/L40)

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	46413200	Power Supply Cord (XX, CSA)	6	13145200	Pipe (short)
	38004700	Power Supply Cord (UL)	7	13138100	Drive Wire
	38004500	Power Supply Cord (EU)	8	13106200	Pipe Holder
	38004300	Power Supply Cord (BS)	9	13098300	Pulley (B)
	07204200	Power Supply Cord (AS)	10	13145300	Pipe (long)
2	39106000	Strain Relief (XX, UL, CSA)	11	18032300	DD Motor with Control Circuit Board (S-0121)
	39104900	Strain Relief (EU, BS, AS)	12	08320700	Screw, M4 x 12
3	13154300	P.U. Output Cord	13	15008301	Power Transformer (XX)
4	39105700	Strain Relief (P.U. Cord)		15008302	Power Transformer (UL, CSA)
5	46170400	Jack, COMPU-SELECTOR, COMPU-EDITING		15008305	Power Transformer (EU, BS, AS)

Fig. 6-1 Display Stage

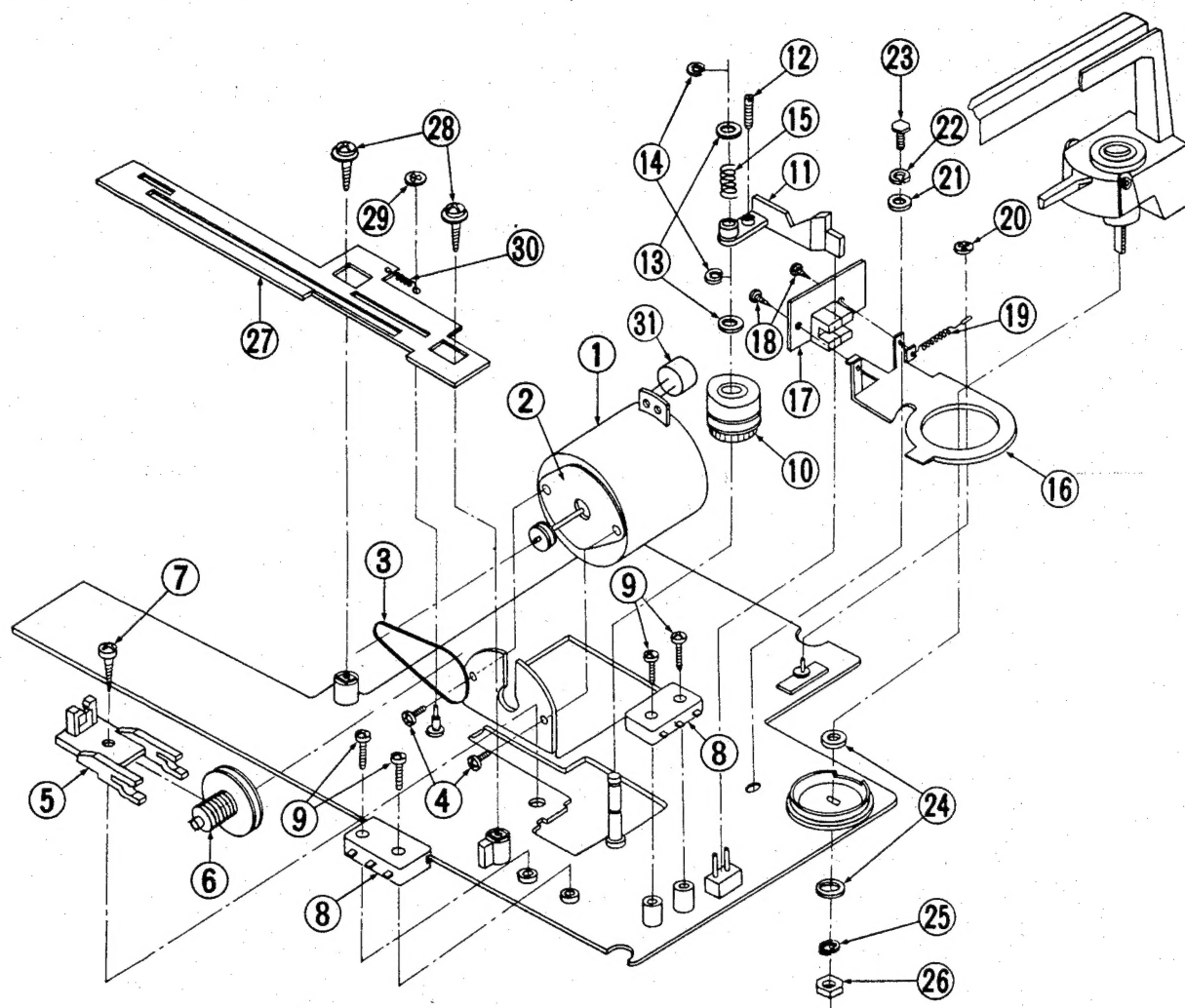


● Note:  
As to UL, CSA, BS, ES, AS and xx marked in the Parts Lists, note the followings:  
UL, CSA . . . Parts used in the unit which is applicable to the USA and Canada under industrial standards.  
BS . . . . . Parts used in the unit which is applicable to British under industrial standards.  
EU . . . . . Parts used in the unit which is applicable to Sweden, Denmark, Norway, Finland, West Germany, and Switzerland under industrial standards.  
AS . . . . . Parts used in the unit which is applicable to Australia under industrial standards.  
XX . . . . . Parts used in the unit which is applicable to other countries excepting mentioned above.

\* In this parts list, those parts with no above mark in the place of Description are all the same as XX marked parts.

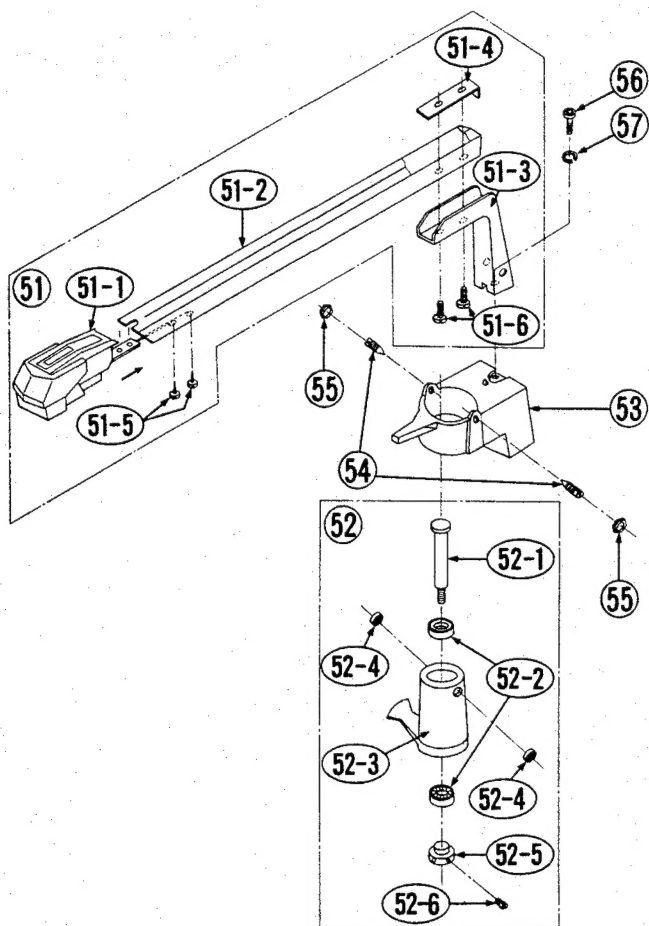
## 7. EXPLODED VIEW OF MECHANISM Ass'y & PARTS LIST

### 7-1. Auto Mechanism Ass'y (I)



Parts List <Auto Mechanism Ass'y (I)>

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	46176300	Micro Motor <b>3634 4500</b>	16	13097810	Sensor Holder
2	55029810	Rubber Cushion	17		Sensor Circuit Board, S-0140
3	13103800	Belt (B)	18	00421300	Pan Head Screw M2.6 x 6
4	00436500	Pan Head Screw, M2 x 4	19	13111500	Tension Spring (2)
5	13098110	Shaft Guide (B)	20	51830000	CS-Type Washer, M2
6	13134200	Warm Shaft Ass'y (B)	21	00466500	Plane Washer, M4
7	13122300	Binding Head Deltite Screw, M3 x 6	22	00469700	Spring Washer, M3
8	11602700	Micro Switch	23	51626500	Hexagon Head Screw, M3 x 6
9	13127800	Binding Head Tapping Screw, M2 x 12	24	00466700	Plane Washer, M4
10	13103710	Lifter Cam	25	00469800	Spring Washer, M4
11	13098910	Lifter Plate	26	00463800	Hexagon Nut, M4
12	13115200	Slot Type Set Screw, M3 x 10	27	13137900	Position Guide
13	51825000	Thrust Washer, FT3	28	51625100	Pan Head Tapping Screw, M3 x 8
14	00489000	E Type Washer, D2	29	13111400	Tension Spring (1)
15	13111600	Compression Spring	30	51830000	CS-Type Washer, M2
			31	00305600	22μF 25V E.B.

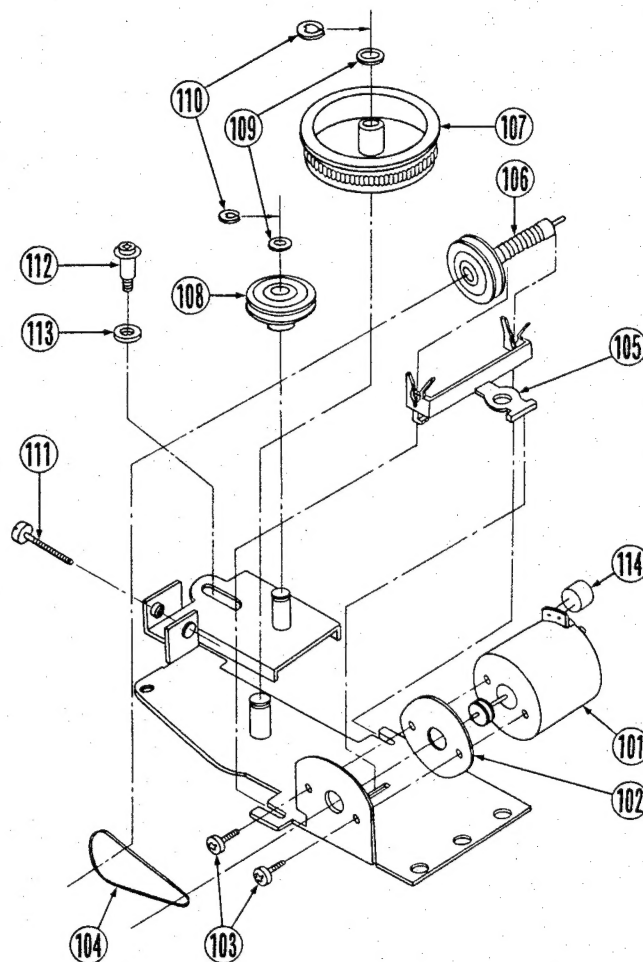


Parts List &lt;Auto Mechanism Ass'y (I)&gt;

Parts No.	Stock No.	Description
51	18037600	Tone Arm Ass'y (P-L50)
	18037700	Tone Arm Ass'y (P-L40)
51-1		Cartridge, SV-505 with sensor
51-2		Pipe
51-3		Pipe Holder
51-4		GND Rag
51-5		Pan Head Tapping Screw, M2 x 4
51-6		Pan Head Screw, M2 x 4
52	18026501	Arm Shaft Bearing Ass'y
52-1		Arm Shaft Bearing
52-2		Radial Bearing
52-3		Arm Bearing
52-4		Pivot Bearing
52-5		Holder Ring
52-6		Slot Type Set Screw, M2.5 x 2.5
53	13096700	Holder Weight
54	13114100	Pivot
55	00463600	Hexagon Nut, M3
56	13127200	Hexagon Socket Head Screw, M3 x 10
57	00469700	Spring Washer, M3

Note: Parts without Stock Nos. are not supplied even parts name are listed in the parts list.

## 7-2. Auto Mechanism Ass'y (II)



Parts List &lt;Auto Mechanism Ass'y (II)&gt;

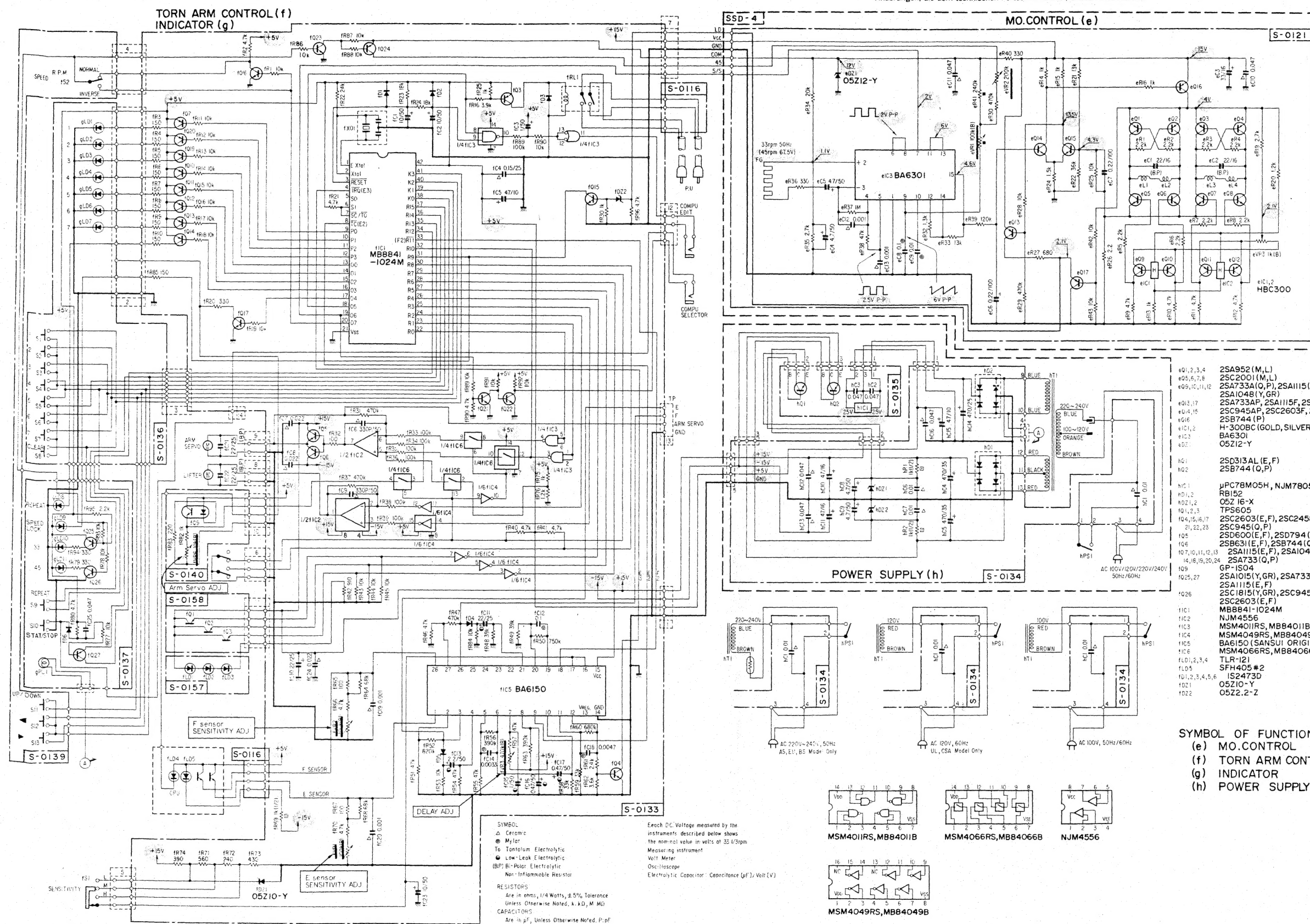
Parts No.	Stock No.	Description
101	46176300	Micro Motor 3634 4500
102	55029810	Rubber Cushion
103	00436500	Pan Head Screw, M2 x 4
104	60322310	Belt (A)
105	13098400	Warm Shaft Guide (A)
106	13134100	Warm Shaft Ass'y (A)
107	13098500	Driver Gear
108	13098300	Pulley (B)
109	51822600	Thrust Washer, FT4
110	00489200	E Type Washer, D3
111	00437600	Pan Head Screw, M3 x 20
112	13112800	Flanged Screw, M3
113	00466700	Plane Washer, M4
114	00305600	22µF 25V E.B.

## • Abbreviations

1. Pan Head Tapping Screw ... PT Type	6. Binding Head SEMS F Screw ... BSF Type	11. Hex. Socket Setcrew ... SC Type	16. Retaining Ring (E Washer) ... E Type
2. Washer Head Tapping Screw ... WT Type	7. Binding Head B Type	12. Slot Type Setcrew ... SS Type	17. Toothed Lock Washer (External) ... TLE Washer
3. Pan Head Screw ... P Type	8. Flat Counter Sunk Head Screw ... F Type	13. Binding Head SEMS B Screw ... BSB Type	18. Wave Washer
4. Pan Head SEMS A Screw ... PSA Type	9. Flat Counter Sunk Wood Screw ... FC Type	14. Spring Washer ... S Type	19. Hexagon Nut H Type Nut
5. Pan Head SEMS B Screw ... PSB Type	10. Round Head Wood Screw ... RH Type	15. Plain Washer ... P Type	

## 8. SCHEMATIC DIAGRAM 8-1. P-L50

\*Design and specifications subject to change without notice for improvement.  
 \*La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.  
 \*Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



- 2SA733  
2SA952  
2SA1048  
2SA1115  
2SA1C15  
2SC945  
2SC1815  
2SC2001  
2SC2458

- 


- 

- MB84049B  
MSM4011P  
MSM4066RS  
TC4011P

- 
- BA6150

- 

- 
- Diagram of a rectangular component with dimensions 16, 9, and 5.

- 
- MSM4C

- 

- 
- RB152

- 

- 1S2473D 05Z10  
05Z2.2  
05Z16X  
05Z12Y

- 

SYMBOL OF FUNCTION

- (e) MO. CONTROL
- (f) TORN ARM CONTROL
- (g) INDICATOR
- (h) POWER SUPPLY

SYMBOL  
 Δ Ceramic  
 ⊗ Mylar  
 T<sub>o</sub> Tantalum Electrolytic  
 ● Low-Leak Electrolytic  
 (BP) Bi-Polar Electrolytic  
 Non-Inflammable Resistor

RESISTORS  
Are in ohms, 1/4 Watts,  $\pm 5\%$  Tolerance  
Unless Otherwise Noted. k, k $\Omega$ , M, M $\Omega$

CAPACITORS  
Are in  $\mu F$ . Unless Otherwise Noted. P, pF

Each DC Voltage measured by the instruments described below shows the nominal value in volts at 33 1/3rpm

Measuring instrument

Volt Meter

Oscilloscope

Electrolytic Capacitor: Capacitance [ $\mu$ F] / Volt [V]

MSM40IIRS.MB840IIE

MSM4066RS.MB84066F

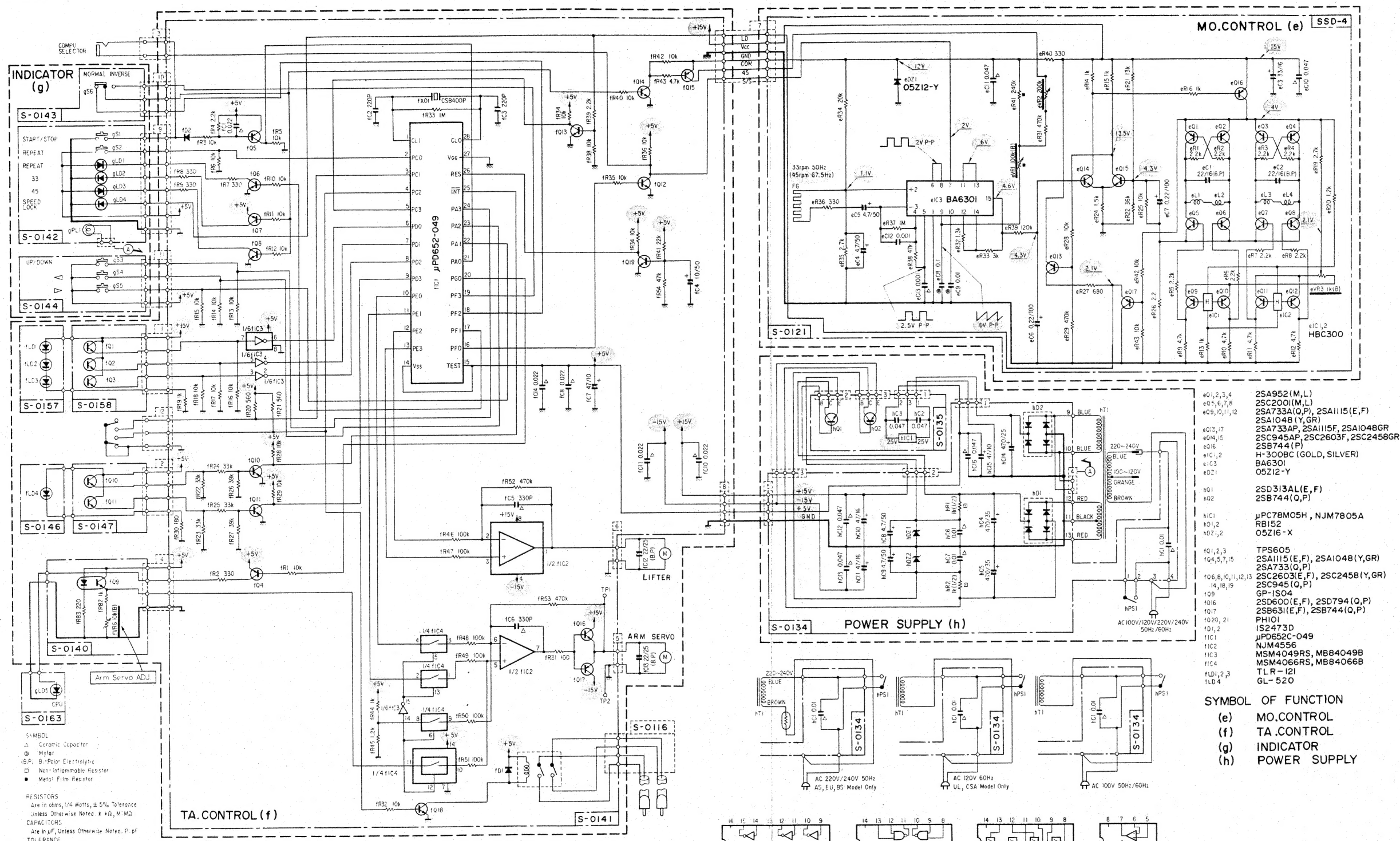
NJM4556

MSM4049RS, MBB4049E

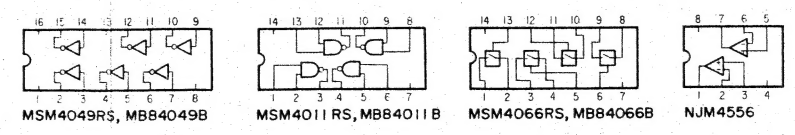


8-2. P-L40

\*Design and specifications subject to change without notice for improvement.  
 \*La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.  
 \*Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



- 2SA733
- 2SA952
- 2SA1115
- 2SA1C48
- 2SC945
- 2SC2001
- 2SC2458
- 2SB631
- 2SB744
- 2SD600
- 2SD794
- 2SD313
- 2SC2603
- μPC78MC5H
- NJM78M05A
- NJM4556
- MB84066B
- MSM4066RS
- BA6301
- μPD652C
- MB846049B
- MSM4049RS
- RB152
- 1S2473D
- 05Z12Y
- 05Z15Y
- 05Z15Z



**SYMBOL**

- △ Ceramic Capacitor
- ⊙ Mylar
- ⊖ P.P. Bi-Polar Electrolytic
- Non-Inflammable Resistor
- Metal Film Resistor

**RESISTORS**

Are in ohms, 1/4 Watts, ± 5% Tolerance  
 Unless Otherwise Noted: R x Ω, M x MΩ

**CAPACITORS**

Are in μF, Unless Otherwise Noted: P x pF

**TOLERANCE**

J: ± 5%, G: ± 2%, F: ± 1%

Each D.C. Voltage measured by the instruments  
 described below shows the nominal value in  
 volts at 33 1/3 rpm.

Measuring Instruments

Volt Meter

Oscilloscope